**NEW MEXICO ENVIRONMENT DEPARTMENT'S**
**RESPONSE TO PUBLIC COMMENTS**
**ON THE PROPOSED COMPLIANCE ORDER ON CONSENT**
**FOR LOS ALAMOS NATIONAL LABORATORY**

**February 18, 2005**

**Introduction.** The New Mexico Environment Department (the Department) is hereby responding to comments it received from the public on the proposed *Compliance Order on Consent: Proceeding under the New Mexico Hazardous Waste Act § 74-4-10 and the New Mexico Solid Waste Act § 74-9-36(D), in the Matter of the United States Department of Energy and the Regents of the University of California, Los Alamos National Laboratory, Respondents* (Compliance Order), that the Department made available for public comment on September 1, 2004. The Department appreciates the comments it has received from interested members of the public. The Department carefully considered these comments, and has made several revisions to the final Consent Order based on these comments.

**Background.** The Consent Order, which the parties are executing today, is an enforceable legal document under which the United States Department of Energy (DOE), the Regents of the University of California (UC) or its successor (collectively, the Respondents) are required to fully determine the nature and extent of contamination at Los Alamos National Laboratory (LANL), identify and evaluate corrective measures to clean up such contamination, and to implement such corrective measures. (*See* Section III.A). It is the culmination of a lengthy process of litigation, settlement negotiations, and public comment. The Department is issuing the Consent Order under the authority of section 74-4-10 of the New Mexico Hazardous Waste Act (HWA). To close potential gaps in the scope of the HWA, the Department is issuing the Consent Order under section 74-9-36(D) of the New Mexico Solid Waste Act (SWA), as well.

On May 2, 2001, the Department made available for public comment a proposed order, *Proceeding under the New Mexico Hazardous Waste Act §§ 74-4-10.1 and 74-4-13, in the Matter of the United States Department of Energy and the Regents of the University of California, Los Alamos National Laboratory, Respondents*. At the same time, the Department made a finding that conditions at LANL may present an imminent and substantial endangerment to health and the environment. The Department notified all interested persons on its mailing list, as well as appropriate local government officials. The Department invited the public to comment on the draft order during a 60-day comment period that was later extended by an additional 30 days. During the initial comment period, the Department held four public meetings at various locations to provide information on the draft order to the public. The Department received comments from 38 persons, including DOE and UC. The Department prepared written responses to those comments, made several changes to the Order, and issued a final unilateral Order on November 26, 2002. Both the United States on behalf of DOE, and UC, challenged the unilateral Order in federal and state court. The parties -- the Department, DOE, and UC -- then began a series of lengthy settlement negotiations in an attempt to reach a resolution of the litigation.

In August 2004, the parties reached an agreement on the proposed Consent Order. The proposed Consent Order was based, as is the final Consent Order, on the original November 26, 2002 unilateral Order, and the substantive provisions of the Consent Order are very similar to those in the original unilateral Order. The Department released the proposed Consent Order on September 1, 2004 and invited the public to comment on it for 30 days. The Department also notified all interested persons on its mailing list, as well as appropriate local government officials, of the availability of the proposed Consent Order. The Department held a public meeting on the proposed Consent Order in Pojoaque on September 8, 2004.

The Department received comments on the proposed Consent Order from 18 members of the public. A list of the persons submitting comments is attached hereto. The Department has made a number of revisions to the final Consent Order based on these comments, as explained below. DOE and UC have agreed to the revisions. The responses adopting those revisions are written in *italic* type. A summary of the comments, and the Department's response, follows.

## A. General

**1. Comment:** One commenter thanks the Department for "holding Los Alamos accountable." The commenter notes that "The problem is very big," and "The Rio Grande will be polluted." (Commenter #3).

**Response:** The Department agrees that the environmental pollution at LANL is a significant problem. The purpose of the Consent Order is to address the problem by requiring the Respondents to investigate and clean up the pollution.

The Consent Order will address any potential pollution of the Rio Grande. Section IV.A.3.f of the Consent Order requires monitoring of water from springs, including several springs along the Rio Grande. The springs to be monitored are listed in Section XII, Table XII-5. Section IV.A.4, the Consent Order requires investigation of sediments in canyons down to the Rio Grande. The Department believes that, through implementation of the Consent Order, any pollution entering the Rio Grande from LANL will be mitigated, and future pollution will be prevented.

**2. Comment:** Another commenter generally criticizes the nuclear energy and nuclear arms industries, and calls on the Department to stop nuclear weapons. (Commenter #5).

**Response:** The Department is without legal authority to regulate nuclear weapons. The comments are not relevant to the Consent Order.

**3. Comment:** Another commenter states that the Consent Order is nothing more than "nit-picking" by "anti-nuclear people" and is not constructive. (Commenter #3).

**Response:** The Department disagrees with the comment. First, as stated in Section II.A.4 of the Consent Order, activities at LANL have resulted in the release into the environment of hazardous wastes, hazardous constituents, and various other contaminants. A variety of hazardous and solid wastes have been disposed of at the facility. Contaminants have been released into and detected in soils and sediments at the facility, and in groundwater beneath the facility.

Contaminants have also been detected in drinking water wells for Los Alamos County. The Department has determined that the requirements of this Consent Order are necessary to protect public health and the environment. Second, the Department is an environmental regulatory agency and is neither "pro-" nor "anti-nuclear."

**B. Public Comment on the Proposed Order**

**4. Comment:** One commenter questions whether there is a legal requirement and structure for public participation prior to the final issuance of the Consent Order, such as specific appeal rights. (Commenter #12).

**Response:** The HWA does not require public participation for compliance orders issued under section 74-4-10, such as the Consent Order. Nor do the Hazardous Waste Management Regulations, 20.4.1 NMAC. The Department nevertheless invited the public to comment on the proposed Consent Order, considered all of the comments it received from 18 members of the public, and has made revisions to the Consent Order based on those comments. The Department also held a public meeting on the proposed Consent Order. The HWA does not provide for appeals by members of the public of compliance orders issued under section 74-4-10.

**5. Comment:** The commenter asks whether all persons who requested public hearings on the closure of the Area G waste disposal area at LANL were notified of the opportunity to comment on the Order. (Commenter #12).

**Response:** The Department sent a copy of the Public Notice of the proposed Consent Order to all persons on the Department's mailing list of interested persons for the LANL facility. The Public Notice contained information on how and when the public was to submit comments. The mailing list includes most, though not all, of the persons who requested public hearings on the closure of Area G. Some of the persons who requested public hearings on the closure of Area G did not request to remain on the mailing list.

**6. Comment:** Another commenter asserts that there is a practice with most agencies that issues are decided and then comments are taken after agreements have been reached. The commenter states that comments should be taken before agreements are made. The commenter asserts that such process did not happen with the Consent Order, and the process is therefore flawed. (Commenter #17).

**Response:** In fact, the Department solicited and received comments from the public on an earlier draft of the order before any agreements were reached between the Department and DOE and UC. As explained above in the Background section, on May 2, 2002, the Department released for public comment a draft unilateral Order for investigation and cleanup of LANL. At the time the Department released the original draft Order, no agreements had been made with DOE or UC. Indeed, no one outside the Environment Department had seen the draft Order. The comment period lasted for 90 days, during which the Department held four public meetings. The Department received comments from 38 members of the public. The Department then issued the final unilateral Order on November 26, 2002, and it made many revisions to the final Order based on the public comments it received. DOE and UC challenged the unilateral Order, and the

parties entered into settlement negotiations. The Consent Order, which is the product of those negotiations, is based on the unilateral Order, and most of its provisions are very similar.

**7. Comment:** One commenter asks what role the Respondents will have in responding to public comment, or modifying the proposed order into the final Consent Order. (Commenter #1).

**Response:** The Respondents have not had any role in responding to the public comments. The Department made the proposed Consent Order available for public comment, and only the Department is responding to those comments. However, the Respondents have necessarily agreed to all changes made to the final Consent Order based on the public comments.

**8. Comment:** One commenter requests that the Department extend the comment period on the proposed Consent Order. The commenter also requests that the Department hold a public "hearing," similar to the public meeting the Department held in Pojoaque, in Los Alamos County, "the local jurisdiction most likely to be impacted by the proposed Order." (Commenter #15).

**Response:** The Department declines to extend the public comment period on the Consent Order. The Department believes that 30 days was an adequate period of time to comment on the Order. The Department also declines to hold a second public meeting, in Los Alamos County, on the Consent Order. The Department held one public meeting on the proposed Order, in Pojoaque. Although the commenter is perhaps correct in stating that Los Alamos County is the jurisdiction most likely to be affected by the Consent Order, many interested members of the public reside in Santa Fe and Albuquerque. Several pueblos are also very likely to be affected by the Consent Order. The Department judged Pojoaque to be a "middle ground" most likely to be equally convenient to the greatest number of interested persons.

**9. Comment:** One commenter urges the Department to hold a formal public hearing on the Consent Order before adopting it. (Commenter #12).

**Response:** The Department has decided not to hold a public hearing on the Consent Order. As noted above in response to Comment **No. 4**, the HWA does not require a public hearing for the Consent Order. Moreover, the Department does not believe a hearing on the Order would serve any useful purpose beyond that served by written public comments and the public meeting. Such a hearing would certainly further delay execution of the Consent Order and implementation of investigation and cleanup actions at the LANL facility. As explained below in response to Comment **No. 77**, the public will have the opportunity to request a hearing on all remedy selection decisions under the Consent Order.

**10. Comment:** The commenter asserts the whole public comment process is "highly prejudiced" and "rigged" because the outcomes are already known. (Commenter #12).

**Response:** The Department has carefully reviewed and considered the comments it has received from the public, and it has made several changes to the Consent Order based on those comments. The process was in no way "rigged," and the outcome of the process was not known at the time the Department released the proposed Consent Order for public review and comment.

**11. Comment:** Another commenter points out that the public notice on the Consent Order stated that all "significant public comments" received on the Consent Order would become part of the administrative record. The commenter is concerned that "significant" is not defined, and the Department might not consider comments it deems to be insignificant. (Commenter #13).

**Response:** The Department has considered and responded to all the comments it received on the Consent Order, and all those comments are part of the administrative record.

## C. Hazardous Waste Facility Permit

**12. Comment:** One commenter critiques the hazardous waste facility permit for LANL. Among the criticisms is that there never were any genuinely enforceable cleanup provisions written into the permit. The commenter also asks what, in detail, is to be the process for re-issuance of the operating permit for LANL, and when will that process take place. (Commenter #12).

**Response:** The Department agrees with the commenter that the hazardous waste facility permit for the LANL facility does not have specific or adequate cleanup provisions. That is one of the reasons that the Department issued the original unilateral Order, and is issuing the Consent Order. The other comments regarding the permit are not relevant to the Consent Order. The Department will be reissuing the LANL operating permit in accordance with the provisions of the HWA and the Hazardous Waste Management Regulations at section 20.4.1.901 NMAC. The Department is not certain when that process will begin.

**13. Comment:** The commenter raises issues and asks several questions regarding the closure of "Material Disposal Areas" or "MDA's" at LANL, particularly Areas G, H, and L. The commenter requests information on closure activities for these areas. The commenter asks how the Consent Order affects the closure process. The commenter asks whether the Department will hold public hearings on the closure of these areas, and when such hearing will be held. The commenter asks whether the Department will require closure of Area G to further disposal of solid wastes. The commenter states that the Consent Order says that the issue of closure of Area G is not addressed in the forthcoming operating permit. The commenter asks whether the Department will be meeting the "full permitting standards" for closure and post-closure of Area H. (Commenter #12).

**Response:** The Consent Order does not address closure or post-closure requirements for operating units at LANL, nor does the Order address the continued disposal of wastes at Area G. Section III.W.1 of the Consent Order specifically provides that the closure and post-closure care requirements for operating units at LANL, under section 20.4.1.500 NMAC, will be addressed in the hazardous waste facility permit and not in the Consent Order.

These issues will be addressed in the renewed hazardous waste facility permit for LANL. The Department will follow the procedural requirements of sections 20.4.1.500, 20.4.1.900, and 20.4.1.901 NMAC in issuing the permit. The closure plans for MDA's G, H, and L will be incorporated in the draft permit. The public will have the opportunity for a hearing when the

draft permit is released for public review. The Department is working on the permit, but it is not certain when the draft permit will be issued.

**14. Comment:** The commenter asks if any public hearings have been held on the hazardous waste facility permit for the LANL facility, and when. (Commenter #12).

**Response:** The Department held a public hearing on the initial hazardous waste facility permit for LANL from September 18 through 20, 1989. The Department also held a public hearing in 1989 on a proposed hazardous waste permit for LANL's Controlled Air Incinerator located at TA-50.

**15. Comment:** The commenter further asks when the United States Environmental Protection Agency (EPA) has held hearings on the hazardous waste facility permit. (Commenter #12).

**Response:** EPA held a public hearing on a portion of the hazardous waste facility permit for LANL on August 7, 1989. EPA issued the so-called "HSWA Module" of the permit for LANL, which covers those portions of the permit issued pursuant to the Hazardous and Solid Waste Amendments of 1984, and included corrective action provisions. EPA issued this portion of the permit because the Department did not at the time have authorization from EPA to implement that portion of the program under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992k.

EPA public hearings are quite different from the hearings the Department holds on permit issuance. EPA public hearings are not adversarial. The agency does not put on testimony or other evidence, and there is no cross-examination of speakers.

## D. Federal Facility Compliance Agreement

**16. Comment:** One commenter states that the Department is seeking to expand its authority "by going after surface water." (Commenter #2).

**Response:** The Department disagrees with this comment. The original unilateral Order, in section IV.A.5, required the Respondents to conduct a surface water investigation. This provision was not an "expansion" of the Department's authority. The Department has the authority under the HWA to address releases of solid waste or hazardous waste into surface water. However, EPA recently – on February 3, 2005 – entered into a Federal Facility Compliance Agreement (FFCA) with DOE to address the surface water investigation under section 402 of the federal Clean Water Act, 33 U.S.C. § 1342. Accordingly, the Department deleted the surface water monitoring and investigation requirements in the Consent Order.

**17. Comment:** Another commenter states that the FFCA should be finalized as soon as possible. (Commenter #1).

**Response:** The FFCA was signed and became effective on February 3, 2005

**18. Comment:** One commenter believes the FFCA should be subject to public participation. (Commenter #1).

**Response:** EPA released a proposed FFCA between the EPA and DOE for public comment on November 8, 2004. EPA accepted public comments for 30 days. EPA responded to the public comments by letter from Robert V. Murphy, Chief, Water Enforcement Branch, EPA Region VI, dated February 3, 2005. The FFCA became final on that day.

The Department supported a public comment process on the FFCA.

## E. Availability of Information to the Public

**19. Comment:** One commenter states that the Department should require all data and reports required by the Consent Order to be readily available to the public via a public website as well as public libraries. Historical reports and data should also be made available. (Commenter #14). Another commenter requests that the Consent Order state how documents and maps submitted under the Order will be made available to the public. (Commenter #13). A third commenter states that information submitted to the Department, DOE, and UC should be publicly available in a timely manner. (Commenter #15). A fourth commenter states that the Consent Order should provide for the ability for public access to site-specific documents, not just the sites that follow the Corrective Measures process outlined in Sections VII.D.7 and VII.E. (Commenter #18).

**Response:** Under the hazardous waste facility permit for LANL, Module VIII (Section Q, Task III.D), the Permittees must maintain an information repository and a public reading room, located in Los Alamos. This requirement applies to documents the Respondents submit to the Department under the Consent Order. Moreover, all documents that the Respondents submit to the Department under the Consent Order, and all documents that the Department generates under the Order, are available to the public at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, in Santa Fe, during normal business hours and upon advance notice. Section XI.A of the Consent Order requires the Respondents to submit all work plans and reports electronically. The Department is working to develop the capacity to place all such documents on its website.

**20. Comment:** Another commenter states the active and inactive lists should easily be available to the public. (Commenter #9).

**Response:** The list of solid waste management units (SWMU's) at LANL is included on the hazardous waste facility permit for LANL. The permit is available for public inspection at the at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, in Santa Fe, during normal business hours and upon advance notice.

**21. Comment:** One commenter states that the Department owes the public periodic progress reports on how the Consent Order is affecting LANL hazards. (Commenter #9).

**Response:** The Department intends to hold periodic informal public meetings on the progress of environmental work at LANL.

**22. Comment:** One commenter states that the Consent Order needs to provide for periodic updates to the community on the progress and status of work under the Order. The commenter suggests annual meetings with the public and semi-annual meetings with local public officials to inform them of the progress of the work. (Commenter #11).

**Response:** The Department intends to hold periodic informal public meetings on the progress of environmental work at LANL. The Department may also hold informal meetings with local public officials if requested.

## F. List of Acronyms

**23. Comment:** One commenter requests that the Department amend the list of acronyms in the Consent Order to include AGI (American Geological Institute), BGS (below ground surface), DQO (data quality objective), TKN (total Kjeldahl nitrogen), TNT (trinitrotoluene), and XRF (X-ray fluorescence). (Commenter #8).

**Response:** The Department agrees that most of these acronyms should be included in the List of Acronyms near the front of the Consent Order. However, neither the term "data quality objective" nor the acronym "DQO" is used any place in the Order. The acronym BGS is currently on the list. *The Department has revised the final Consent Order to include the acronyms AGI, TKN, TNT, and XRF on the list.*

## G. Findings of Fact (Section II.A)

**24. Comment:** One commenter asks for the reason the department abandoned the finding of imminent health risks on which the "complaint was founded." The commenter further questions whether Governor Richardson had any input on this decision. (Commenter #17).

**Response:** A finding that hazardous and solid waste at the LANL facility "may present an imminent and substantial endangerment to health or the environment" was a necessary predicate for issuance of the original November 26, 2002 unilateral Order under section 74-4-13 of the HWA. Such a determination is not necessary in a compliance order on consent under section 74-4-10 of the HWA, such as the final Consent Order. In the interest of settling the litigation over the Order, the Department agreed to remove those findings supporting the endangerment determination from Section II of the Order. The Department has not changed its position about the seriousness of the environmental problem the LANL facility; however, now that a cleanup order is in place, with the Respondents' consent, such a written determination is no longer necessary. Governor Richardson was not involved in this decision.

**25. Comment:** One commenter recommends that the various findings in the original November 26, 2002 unilateral Order, which supported the Department's determination of an imminent and substantial endangerment, be included in the final Consent Order because "it is in the public's interest to do so." (Commenter #1).

**Response:** The Department declines to insert the findings supporting an imminent and substantial endangerment determination into the final Consent Order, for the reasons stated above in response to Comment No. 24.

## H. Purposes and Scope of the Consent Order (Section III.A)

**26. Comment:** One commenter notes that the Consent Order does not require monitoring and regulation of radionuclide contamination. The commenter requests that the Department include CERCLA authority in the Consent Order to regulate radionuclides. (Commenter #17).

**Response:** The commenter is correct that the Consent Order excludes all radionuclides from its requirements, as stated in Section III.A of the Order.

The Department agrees with the commenter that the Comprehensive Response Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 to 9675, covers radionuclides. Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), includes in the definition of "hazardous substance" any hazardous air pollutants listed under section 112 of the Clean Air Act. Section 112(b)(1) of the Clean Air Act, 42 U.S.C. § 7412(b)(1), in turn, includes radionuclides on the list of hazardous air pollutants. In contrast, section 1004(27) of RCRA, 42 U.S.C. § 6903(27), and section 74-4-3(M) of the HWA, exclude from the definition of "solid waste," certain radionuclides, namely source, special nuclear, and byproduct material as defined in the Atomic Energy Act of 1954.

However, unlike RCRA, CERCLA is a federal program that does not provide for delegation to or authorization of qualified states. Exclusively the federal government, primarily EPA, as well as other federal agencies implement it. The State is without authority to include CERCLA cleanup requirements in this Consent Order.

Although the Consent Order does not cover radionuclide contamination, the Department expressly reserves the right, in Section III.T of the Order, to bring a separate action to require monitoring, reporting, or cleanup of radionuclide contamination. Moreover, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data. DOE makes this commitment in a letter from National Nuclear Security Agency Deputy Administrator for Defense Programs Everet Beckner to Environment Department Secretary Ron Curry, dated August 26, 2004, which is part of the administrative record for this Consent Order and available for public inspection.

**27. Comment:** One commenter is concerned how the integrity of the radionuclide data, which DOE has committed to provide voluntarily, will be assured. (Commenter #1).

**Response:** In the letter to Secretary Curry, referenced above in response to Comment **No. 26**, DOE states that UC will follow the DOE-Albuquerque Statement of Work and accreditation by the National Environmental Laboratory Accreditation Program as protocols in collecting and reporting radionuclide data. The Department has carefully reviewed these protocols and concluded that they are adequate to assure the quality of the data. These protocols are available at www.doeal.gov.

**28. Comment:** One commenter states that the Department "attempted to preempt the Atomic Energy Act in seeking jurisdiction over radiological materials during the order negotiations." (Commenter #2).

**Response:** The Department disagrees that it ever "attempted to preempt the Atomic Energy Act." It is true that the original November 26, 2002 unilateral Order required monitoring and reporting of radionuclide contamination, as well as investigation and cleanup of radionuclides contamination other than source, special nuclear, and byproduct material regulated by the Atomic Energy Act of 1954 (AEA). However, the original unilateral Order, in Section I, carefully excluded source, special nuclear, and byproduct material regulated under the AEA, except for monitoring and reporting.

The Department's actions in including these provisions in the unilateral Order were lawful and consistent with the AEA. The AEA regulates only source, special nuclear, and byproduct material; it does not regulate other radionuclides. Moreover, the Department has authority to require monitoring and reporting of all radionuclides as necessary to effectively regulate hazardous wastes and hazardous constituents under the HWA. *See United States v. New Mexico*, 32 F.3d 494 (10th Cir. 1994). The Department's position on this issue is explained at length in its response to comments on the original unilateral Order. The Department did not "expand" this position during settlement negotiations.

In fact, as a major concession, the Department agreed not to include any requirements for radionuclides in the final Consent Order, despite the Department's legal authority to do so. Rather, DOE and UC have agreed to monitor and report on radionuclide contamination voluntarily, as explained above in response to Comment No. 26. The Department expressly reserves the right, in Section III.T of the Order, to bring a separate action to require monitoring, reporting, or cleanup of radionuclide contamination.

**29. Comment:** One commenter expresses concern about the exemption for areas of concern (AOC's) that the EPA has "specifically identified in a letter" as requiring no further action (NFA). The commenter requests specific information about the date of the letter and the number of AOC's it identifies. The commenter also requests the technical bases for the sites "designated NFA" in the Order. (Commenter #13).

**Response:** The letter from, Laurie F. King, Chief of the Federal Facilities Section, EPA Region VI to James P. Bearzi, Chief of the Hazardous Waste Bureau, is dated January 21, 2005, and is available for public review in the administrative record for the Consent Order. The letter lists 542 sites that EPA determined, based on previous investigations and information available at the time, required no further action. There are no sites "designated NFA" in the Consent Order. The Order merely references the EPA letter. The Department does not have information on the technical basis for the EPA determinations. EPA Region 6 in Dallas can perhaps provide the technical basis for sites for which EPA determined no further action was necessary.

The Department agrees that it would be useful to specify the date of the letter in the Consent Order. *The Department has revised Section III.A of the final Consent Order to include the date of the EPA letter listing the sites that EPA determined required no further action.*

**30. Comment:** The commenter also requests that "Solid Waste Act" be spelled out in the second paragraph of Section III.A, rather than the acronym "SWA." (Commenter #13).

**Response:** The Solid Waste Act is spelled out in the first paragraph of Section I, as is RCRA and the HWA.

## I. Definitions (Section III.B)

**31. Comment:** One commenter requests that the Department adds a definition of "TAL metals," and includes a reference to EPA in the definition. (Commenter #8).

**Response:** The Department agrees that a definition of "TAL metals" in the Consent Order is appropriate. However, the Department does not believe that a reference to EPA in the definition is necessary or appropriate. *The Department has revised the final Consent Order to add a definition of "TAL metals," but without including a reference to EPA.*

**32. Comment:** Another commenter requests that the Department add to the Consent Order definitions for the terms "site" and "site-specific" to differentiate between requirements that apply "facility-wide" or to "watersheds" on the one hand, and requirements that apply to specific sites or technical areas on the other. The commenter also requests that the Department include a definition of "immediate threat or hazard." (Commenter #16).

**Response:** The Department does not believe that the use of the term "site" in the Consent Order should be a cause for any confusion. Although the term is sometimes used in the broader sense to denote an entire facility, the term is consistently used in its narrower sense in the Consent Order, to denote a specific site. This usage is clear from the context. Moreover, it would be difficult to fashion a meaningful and adequately flexible definition of the term.

The term "immediate threat" is used twice in the Consent Order, in Sections IV.A.5.b and VII.B.5. The term is not readily susceptible to definition. It could apply to a variety of conditions or circumstances many of which cannot be foreseen. It will be determined on a site-specific basis.

**33. Comment:** One commenter suggests adding a definition for "industrial discharges that are point sources subject to permits under Section 402 of the Clean Water Act" in the Definitions Section. (Commenter #13).

**Response:** The Department does not believe a definition of this term should be included in the Consent Order. The term is used in the RCRA regulations at 40 CFR § 261.4(a)(2). It is not defined in the regulations, and it has been the subject of several judicial decisions. Judging from the comments the Department received from DOE and UC on the original November 26, 2002

unilateral Order (included in the administrative record), the Department does not believe the parties would be able to reach an agreement on a definition of the term.

**34. Comment:** A commenter requests a definition of "cleanup." (Commenter #6).

**Response:** "Cleanup" is a general term that means actions taken to address a release or threat of a release of a contaminant that could adversely affect human health or the environment. It does not need to be defined in the Consent Order.

**J. Binding Effect (Section III.F)**

**35. Comment:** Two commenters request that a provision be added to Section III.F of the Consent Order requiring UC to turn over to DOE or to the new managing contractor all environmental records if UC is replaced as the contractor. (Commenters #7 and #13).

**Response:** The Consent Order provides in Section III.Q (Records Preservation) that the Respondents must maintain records for 10 years following the termination of the Order. This requirement applies to both DOE and UC, as the Respondents. Moreover, under Section III.F, both DOE and UC are jointly and severally liable for all obligations under the Consent Order. Thus, DOE is independently responsible for preserving records. Section III.F also provides that these record preservation requirements must be imposed on any new contractor.

**K. Stipulated Penalties (Section III.G)**

**36. Comment:** One commenter praises the inclusion of stipulated penalties in the Consent Order, and seeks to confirm that all the parties are in agreement regarding stipulated penalties. (Commenter #1).

**Response:** All of the terms and requirements of all provisions of the Consent Order have been agreed to by the parties, including stipulated penalties.

**37. Comment:** The commenter also questions whether the stipulated penalty amounts are sufficient, and encourages the Department to impose harsher penalties for major infractions. (Commenter #1).

**Response:** The Department believes that the stipulated penalties provided in the Consent Order will generally provide a sufficient deterrent to noncompliance. The Department nevertheless agrees with the commenter that for particularly serious violations, more stringent penalties may be appropriate. Therefore, Section III.G.7 of the Consent Order expressly provides that the Department reserves the right to seek other appropriate relief, including other monetary relief, in lieu of stipulated penalties. The Department has several legal options for imposing monetary penalties for violation of the Consent Order. For example, under section 74-4-10(C) of the HWA, if a violator fails to take corrective action within the time specified in a compliance order, the Department may assess a civil penalty of up to $25,000 per day of continued noncompliance with the order.

**38. Comment:** Two commenters believe there should be no limit on the number of submittals subject to stipulated penalties. (Commenters #7 and #13).

**Response:** It is quite common in settlement agreements to place a limit on the items or deliverables that are to be subject to stipulated penalties, and the Department believes that imposing stipulated penalties for up to a maximum of 15 submittals per year, as provided in Section III.G.1 of the Consent Order, is a reasonable compromise. As stated above in response to Comment No. 37, the Department expressly reserves the right to seek other appropriate relief, including other monetary relief, for failure of the Respondents to comply with any requirement of the Consent Order. *See* Section III.G.7. Thus, for example, if the Respondents were to fail to submit a document required under the Consent Order, and that document was not one of the 15 submittals designated for stipulated penalties for that year under Section III.G.1, the Department could still issue a compliance order assessing a civil penalty for the violation.

**39. Comment:** One commenter suggests that the Consent Order include a list of the two ways that stipulated the Department may impose penalties on the Respondents. (Commenter #13).

**Response:** The two types of violations for which stipulated penalties may be imposed – failure to submit a deliverable document (such as a work plan or report) on time, or submittal of a deliverable document that does not substantially comply with the specifications of the Consent Order – are stated in the first paragraph of Section III.G.2.

**40. Comment:** The commenter also states that the Consent Order should specify criteria for the department to demonstrate that the submittals do not substantially comply with the Order. (Commenter No. 13).

**Response:** The commenter does not suggest any such criteria, and the Department believes such criteria would be extremely difficult to develop given all the possible ways a deliverable document might fail to substantially comply with the specifications of the Consent Order. Because the requirements of the Consent Order are quite detailed and specific, however, legitimate disputes over whether those requirements are met should be relatively infrequent. Under Section III.M.2, the Department will determine, at least in the first instance, whether the document substantially complies by approving it, modifying it, or disapproving it.

**41. Comment:** One commenter states that the interest rate for past due stipulated penalties should be specified in the Consent Order. (Commenter #1).

**Response:** Section III.G.6 of the Consent Order provides that interest shall accrue on stipulated penalties not paid when due at the rate specified in 28 U.S.C. § 1961. That rate, which is based on the weekly average 1-year constant maturity Treasury yield published by the Board of Governors of the Federal Reserve System, fluctuates weekly. It therefore would not be possible to provide more specificity on the rate in the Order. The weekly rate is available at *www.federalreserve.gov/releases/H15/Current*. The rate for the week ending Friday, February **18, 2005 was 2.96%.**

**42. Comment:** Two commenters state there should be a mechanism for public participation in the annual meeting to determine the deliverable documents that will be subject to stipulated penalties. These commenters also state that there should be a mechanism for the public to participate in decisions on assessment of stipulated penalties. These commenters suggest removing the last two sentences of Section III.G.3, allowing the Department to reduce or waive stipulated penalties, as an alternative to public participation in the process. (Commenters #7 and #13).

**Response:** Assessment and collection of stipulated penalties, including any decision to reduce or waive stipulated penalties, is an enforcement action that is committed, by law, to agency discretion. The Department does not believe public participation in such decisions is appropriate. Nor is the Department aware of any precedent for public participation in such decisions.

**43. Comment:** Another commenter asks where fines are identified for improperly drilled "non-compliant" wells. (Commenter #17).

**Response:** The Consent Order does not address penalties for any past violations the Respondents may have committed.

**L. <u>Force Majeure (Section III.H)</u>**

**44. Comment:** One commenter believes that safety violations should be listed as an example of force majeure. (Commenter #16).

**Response:** The examples of force majeure in Section III.H.2 of the Consent Order are not intended to be comprehensive. DOE and UC may claim a safety issue as a force majeure so long as it meets the definition in Section III.H.1.

**45. Comment:** The commenter also questions why the term "unanticipated breakage" rather than "accidental breakage" is used in item No. 3 in Section III.H.2. (Commenter #16).

**Response:** Again, Section III.H.2 of the Consent Order merely lists several possible examples of force majeure. One example given is "Unanticipated breakage or accident to machinery, equipment or lines of pipe." An "unanticipated breakage" and an "accidental breakage" are not necessarily the same thing. For example, a broken drill rig might be the result of vandalism rather than an accident. Yet this event might qualify as force majeure.

**46. Comment:** One commenter requests clarification on what steps are taken if the Department does not agree with the Respondents' claim of force majeure. The commenter suggests that if the parties would automatically resort to dispute resolution under Section III.I, it should be specified at the end of Section III.H.2. (Commenter #13).

**Response:** In the event of a disagreement over a claim of force majeure, the parties would attempt to resolve the disagreement through the dispute resolution process under Section III.I. Section III.I provides that any dispute that arises under the Consent Order is subject to the

dispute resolution procedures, unless it is specified otherwise. Thus, it is not necessary to reference the dispute resolution provision in Section III.H, or in any of the other myriad provisions of the Consent Order under which a dispute could arise.

**47. Comment:** One commenter states that the examples of force majeure can be interpreted to include the Department, as a governmental agency, and that the Respondents are protected from fines if they are unable to obtain approval from the Department. (Commenter #9).

**Response:** The commenter is correct that the Department's failure to provide an approval or to grant a permit might, in some circumstances, be grounds for a claim of force majeure. Section III.H.2 of the Consent Order illustrates this possibility by listing an example (although the possibility would still exist in the absence of the written example) of a possible force majeure: "Inability to obtain, at reasonable cost, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than DOE." However, such an example is a force majeure only if it meets the definition of force majeure in Section III.H.1. To meet this definition, it must be beyond the Respondents' reasonable control. Thus, for example, if the Department were to disapprove a work plan because it was deficient, the deficiency would be within the Respondents' control and no claim of force majeure could be made. Conversely, if the Department were to fail to review an adequate and complete work plan that was necessary to continue the work, that failure might be grounds for a claim of force majeure.

**48. Comment:** Two commenters request that the public have the opportunity to participate in force majeure decisions. (Commenters #7 and #13).

**Response:** The Department's decision whether or not to concur with a claim of force majeure is to a large degree a legal decision, applying the law to the specific facts of the claim. It also involves an element of enforcement discretion. The Department does not believe public participation in such decisions is appropriate. Nor is the Department aware of any precedent for public participation in such decisions.

## M. <u>Dispute Resolution (Section III.I)</u>

**49. Comment:** One commenter states that the Consent Order should be amended to include a process that provides finality in the dispute resolution process. The existing language does not provide timely resolution. The commenter suggests creating a third party group consisting of one technical expert selected by the Department, one by DOE and UC, and one by these two experts. This group would have 10 days to reach a resolution. The parties could be bound by the results, or the results could be treated as advisory. (Commenter #15).

**Response:** The commenter is correct in that the dispute resolution process under Section III.I of the Consent Order will not necessarily lead to a final resolution. Such a resolution would be possible only through some form of binding arbitration, one possibility the commenter suggests. However, neither the Department nor the United States can legally submit to binding arbitration. Ultimately, if the dispute resolution process is not successful, the parties may submit the matter

to non-biding arbitration, or proceed to an enforcement action or other judicial process, as set forth in Section III.I.5.

The Consent Order provides for informal dispute resolution, followed by three successive rounds of formal dispute resolution by persons of ascending levels within each of the parties' hierarchies. From the start of informal negotiations to the end of Tier 3 negotiations, the Order allows a maximum duration of 30 days, unless the parties agree to an extension. The Department does not believe that requiring yet another round of formal dispute resolution will enhance the likelihood of resolving a dispute, and it may result in further delay.

**50. Comment:** One commenter states that the informal dispute resolution provision in Section III.I.1 of the Consent Order is incomplete because it does not provide a "mechanism" for dispute resolution. The commenter suggests it include a meeting between the Department Bureau Chief and the LANL project manager. (Commenter #16).

**Response:** Informal dispute resolution does not require a formal mechanism. It is typically conducted at the staff level, and the Department Bureau Chief and LANL project manager would normally participate. The Department has conducted informal dispute resolution under many other settlement agreements with similar provisions.

**Other Issues:** *The Department has revised the titles of some of the Tier 1, Tier 2, and Tier 3 officials for DOE and UC in Sections III.I.2, III.I.3, and III.I.4 to reflect changes in those parties' organization.*

**N. <u>Modification (Section III.J)</u>**

**51. Comment:** Two commenters expressed concern about the clause in Section III.J.2 of the Consent Order providing for automatic approval of a request for extension of time if the Department does not respond in writing within 10 days. (Commenters #7 and #13). One of the commenters states that this provision is "not acceptable," and that the Respondents "should never assume that their submittals are acceptable" without a written approval from the Department. (Commenter #13).

**Response:** Section III.J.2 of the Consent Order merely provides that a request for *an extension of time* will be automatically granted if the Department does not respond in writing within 10 days. It does not allow any automatic approval of substantive submittals, such as work plans or reports. The Department believes 10 days will be more than adequate to make a decision on a request for an extension of time and to put it in writing. The Department is committed to meet this deadline and avoid any "automatic" extensions.

**52. Comment:** Another commenter states that the deadlines in the Consent Order are not fixed, but can slide as needed. (Commenter #12).

**Response:** The commenter is correct that the deadlines in the Consent Order can be extended, for good cause, upon Department approval, as provided in Section III.J.2. Provisions for such

extensions of time are standard in environmental cleanup agreements – and in permits, as well – that contain specific deadlines.

## O. Notice to Parties (Section III.L)

**53. Comment:** One commenter states the Consent Order requires that "notice be sent to DOE, [the Department,] and UC when a plan, report, or other document required by the [Consent] Order is submitted by one of the Parties." The commenter requests that such "notices" also be sent to any persons holding an interest in the subject property, and to each local government having jurisdiction over the property. (Commenter #15).

**Response:** The commenter appears to misunderstand the requirement of Section III.L of the Consent Order. It does not require that any notice be sent when a plan, report, or other deliverable document is submitted. It merely identifies the name, address, telephone number, and fax number of representatives of the parties for delivery of any notices or deliverable documents required elsewhere in the Consent Order.

The Department does not believe it would be worthwhile to send a copy of each deliverable document produced under the Consent Order, which will number in the hundreds, to all persons having an interest in the cleanup. Many persons in addition to property owners and local governments have an interest in the LANL cleanup. The Respondents' Hazardous Waste Facility Permit, Module VIII (Section Q, Task III.D), requires the Permittees to maintain an information repository and a public reading room in Los Alamos. Moreover, all documents that the Respondents submit to the Department under the Consent Order, and all documents that the Department generates under the Order, are available to the public at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, in Santa Fe, during normal business hours and upon advance notice. Section XI.A of the Consent Order requires the Respondents to submit all work plans and reports electronically. The Department is working to develop the capacity to place all such documents on its website.

## P. Work Plans and Other Deliverable Documents (Section III.M)

**54. Comment:** One commenter states that the work plans mentioned in the Consent Order are not included or are "very vague." (Commenter #17).

**Response:** The work plans are not included in the Consent Order because they are to be developed, approved, and implemented pursuant to the Consent Order. Fairly specific requirements for the work plans are found throughout the Consent Order, most notably in Section IV. The required format for the work plans, again with a fair amount of specificity, is provided in Section XI.B.

The Respondents have already submitted several work plans to comply with the Consent Order prior to its execution. These work plans are available to the public for review at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, Santa Fe, during normal business hours and upon advance notice. Section XI.A of the Consent Order

requires the Respondents to submit all work plans electronically. The Department is working to develop the capacity to place the work plans and other documents on its website.

**55. Comment:** Another commenter states that the language in Paragraph 2 of Section III.M.1 of the Consent Order does not make sense because the intent of a work plan should be to summarize previous work and not to "state that the work meeting the requirement of this Consent Order has been completed." Commenter #16).

**Response:** Although the provision in Paragraph 2 of Section III.M.1 of the Consent Order is rather unusual, it makes sense. The Respondents maintain that some of the work the Department requires in the Consent Order has been completed, although they have not yet submitted a report documenting such completion. Therefore, the Department is allowing the Respondents the opportunity, as part of the work plan submittals, to document that work required under the Consent Order has already been completed.

**56. Comment:** The commenter further states that the word "shall" should be changed to "may" in Paragraph 3 of Section III.M.1 because not all work plans will have alternate requirements. (Commenter #16).

**Response:** The commenter is correct that not all work plans will necessarily include alternate requirements. However, the language in each of the three paragraphs in Section III.M.1 of the Consent Order is properly written using the mandatory "shall" because the three paragraphs are written in the alternative. The Respondents may comply with either Paragraph 1, 2, or 3, but they must comply with at least one of them.

**57. Comment:** The commenter also states that Paragraph 3 in Section III.M.1 of the Consent Order should cross-reference Section III.J, Modification. (Commenter #16).

**Response:** Department approval of a work plan with alternate requirements is not a modification under Section III.J, as stated in Section III.J.1, so such a cross-reference would not be appropriate.

**58. Comment:** Another commenter urges the Department to streamline the approval process within the Consent Order, as a "staggering" number of documents require Department written approval. The commenter further states that the Consent Order should more specifically spell out the options for the parties should the approval process be unable to keep pace with the schedule, causing delays in the schedule that may not coincide with LANL personnel and funding cycles. (Commenter #9).

**Response:** The Department recognizes that it will need to approve a great many deliverable documents under the Consent Order, and it shares the commenter's concern on the potential for delay. However, the Department believes the schedule in the Order is a realistic one. The Department is committed to reviewing the deliverable documents on schedule, which is essential if the Consent Order is to succeed. However, if the Department is occasionally unable to review documents on schedule, as the commenter notes, there are provisions in III.M.2 allowing for extensions of time.

## Q. Entry and Inspection (Section III.O)

**59. Comment:** One commenter asks what consequences the Respondents will face if they fail to notify the Department a minimum of 15 days prior to conducting sampling, as required under Section III.O of the Consent Order. (Commenter #13).

**Response:** As with any other violation of the requirements of the Consent Order, if the Respondents do not comply with the notice provision, the Department can bring an appropriate enforcement action, which could include assessing civil penalties or seeking injunctive relief. Some of the enforcement options available to the Department are described in Section III.U (Enforcement).

**60. Comment:** Another commenter suggests revising Section III.O of the Consent Order to require the Respondents to consider applicable safety requirements in addition to security requirements when allowing entry of Department representatives. (Commenter #16).

**Response:** Department personnel necessarily follow appropriate safety procedures when visiting a regulated facility. It need not be expressly stated in the Consent Order.

## R. Availability of Information (Section III.P)

**61. Comment:** One commenter asks if and how the public will have access to pertinent information. (Commenter #1). Another commenter requests that the Consent Order specifically state how the public will have access to documents and maps submitted under the Consent Order. (Commenter #13).

**Response:** The Respondents' Hazardous Waste Facility Permit, Module VIII (Section Q, Task III.D), requires the Permittees to maintain an information repository and a public reading room in Los Alamos. Moreover, all documents that the Respondents submit to the Department under the Consent Order, and all documents that the Department generates under the Order, are available to the public at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, in Santa Fe, during normal business hours and upon advance notice. Section XI.A of the Consent Order requires the Respondents to submit all work plans and reports electronically. The Department is working to develop the capacity to place all such documents on its website.

## S. Record Preservation (Section III.Q)

**62. Comment:** Two commenters disagree with requiring the Respondents to maintain records for only 10 years after termination of the Consent Order, as provided in Section III.Q of the Consent Order. The commenters suggest the records be kept until the site is "closed" and be kept electronically. (Commenters #7 and #13).

**Response:** The Department agrees that the Respondents should be required to maintain records beyond the date that is 10 years after termination of the Consent Order. As the Order is implemented and corrective action is completed, however, the record preservation requirements

will shift to the hazardous waste facility permit. Once corrective action for a site is complete, it will be listed in the permit under one of two lists: "Corrective Action Complete With Controls" or "Corrective Action Complete Without Controls," as required in Sections III.W.3.a and VII.E.6.b of the Order. That site will then be subject to the record preservation provision of the permit.

**Other Issues:** The Department notes that in the proposed Consent Order, Section III.Q was given the incorrect heading "Record Severability." *In the final Consent Order, the corrected the heading of Section III.Q is "Record Preservation."*

**T. State's Reservation of Rights (Section III.T)**

**63. Comment:** One commenter asserts that under the Consent Order the State gives up all authority to require the Respondents to redesign and re-implement a remedy if the remedy fails. (Commenter #12).

**Response:** The State does not give up any such authority. To the contrary, the State expressly reserves this authority. Under Section III.T of the Consent Order, the Department retains the authority to require the Respondents to conduct additional investigations or cleanup at any site based on previously unknown conditions or new information. Remedy failure would certainly constitute previously unknown conditions or new information, or both.

**U. Enforcement (Section III.U)**

**64. Comment:** One commenter asks whether the Department can sue to enforce the requirements of the Consent Order. (Commenter #12).

**Response:** Most certainly, the Department can sue either DOE or UC, or both of them, to enforce any of the requirements of the Consent Order. The Department has insisted throughout the proceedings on the Order, and in settlement negotiations, that the cleanup requirements for the LANL facility be in an enforceable document. Moreover, the Hazardous Waste Management regulations, at section 20.4.1.500 NMAC (incorporating 40 C.F.R. § 264.90(f)), require that corrective action requirements must be in an enforceable document. The Consent Order is such an enforceable document. A partial description of the mechanisms the Department may use to enforce the Consent Order are set forth in Section III.U of the Order.

**65. Comment:** The commenter states that the provisions in an operating permit are subject to enforcement by citizen suit, but that the provisions of the Consent Order are not. (Commenter #12).

**Response:** Both the permit and the Consent Order can be enforced by citizen suits under RCRA. Section 7002(a)(1)(A) of RCRA provides that "any person may commence a civil action on his own behalf against any person including the United States . . . who is alleged to be in violation of any *permit*, standard, regulation, condition, requirement, prohibition, or *order* which has become effective pursuant to this chapter." 42 U.S.C. § 6972(a)(1)(A) (emphasis added). A partial

description of the mechanisms that may be used to enforce the Consent Order are set forth in Section III.U, and a citizen suit is among them.

**66. Comment:** Another commenter refers to "limited enforcement," and states the Consent Order prevents any effective enforcement by the State for many years to come. (Commenter #17).

**Response:** The commenter did not provide any explanation for this comment, and the Department is puzzled by it. The Consent Order does not "prevent any effective enforcement action" by the State now or in the future. The State does not compromise any of its enforcement authority under the Consent Order. The Consent Order requires DOE and UC to take action, beginning as soon as the Order is signed, to investigate and clean up environmental contamination at LANL. The Consent Order sets forth these requirements in considerable detail. If DOE and UC fail to comply with the requirements of the Order, the Department has a variety of enforcement options it can use to compel compliance. These options may include, depending on the violation, stipulated penalties as provided in Section III.G, and would also include assessment of civil penalties and actions for injunctive relief, as described in Section III.U. Moreover, the Order is subject to enforcement by citizen suits under section 7002(a)(1)(A) of RCRA, 42 U.S.C. § 6972(a)(1)(A). The Consent Order also contains a comprehensive reservation of the State's enforcement rights in Section III.T.

## V. Relationship to Work Completed (Section III.V)

**67. Comment:** One commenter suggests that the Department include in the Consent Order a list of work deemed satisfactorily complete by EPA or the Department by January 1, 2004, or later if possible. The commenter states that such a list would be useful "for preventing backtracking." (Commenter #16).

**Response:** The Department does not believe adding such a list to the Consent Order would be worthwhile. The list would be exceedingly long because it would include approval documents that date back to the beginning of LANL's hazardous waste facility permit, issued in 1989. All documents by which the Department has approved completed work are part of the administrative record. In addition, the January 21, 2005 letter from EPA listing the sites that EPA determined required no further action, referenced in Section III.A of the Consent Order, is also in the administrative record. This record will provide the basis to avoid "backtracking" or repetition of work already completed. The administrative record is available for public inspection at the offices of the Departments Hazardous Waste Bureau, 2905 Rodeo Park Drive East, Building 1, Santa Fe, during normal business hours and upon advance notice.

## W. Integration With Permit – General (Section III.W.1)

**68. Comment:** One commenter states that the Consent Order "cedes New Mexico's whole authority to require cleanup" under the permit, citing Section III.W.1 of the Order. The commenter also remarks that the Consent Order "gives away so much of the State's power." (Commenter #12).

**Response:** The commenter is correct in that the Department is using the Consent Order, rather than the hazardous waste facility permit, as the enforceable legal document to require cleanup of the LANL facility. However, the Department disagrees that it is "ceding" any authority in doing so, or that the Consent Order "gives away" any of the State's power. The Department retains all its authority to compel cleanup and all its enforcement authority; it merely exercises that authority through the Consent Order rather than through a permit. The Consent Order is every bit as enforceable as a permit would be.

Indeed, the Department is able to exert greater authority through the Consent Order than might be legally possible under a permit. For example, in requiring corrective action under a permit, the Department has clear authority to require investigation and cleanup of hazardous wastes and hazardous constituents. The HWA provides in section 74-4-4.2(B) that hazardous waste permits "shall require corrective action for all releases of hazardous waste or hazardous constituents." Certain contaminants at LANL do not fall within the regulatory definitions of "hazardous waste" or "hazardous constituent." See 40 C.F.R. part 261, subparts C and D for an identification of "hazardous wastes," and 40 C.F.R. part 261, appendix VIII for a list of "hazardous constituents." Certain contaminants known to be present at LANL, such as many constituents of high explosives, perchlorate, sulfate, and nitrate, do not fit within these regulatory definitions.[1] On the other hand, because the Consent Order is based in part on the Department's authority to issue compliance orders under section 74-9-36(D) of the SWA, which clearly covers a broader range of contaminants, the Order addresses these contaminants. This clear authority is one reason that the Department decided to require cleanup under an order rather than a permit.[2]

**69. Comment:** The commenter states that there are "statutory closure, post-closure, and related permitting standards" and federal regulations governing cleanup of permitted disposal units. The commenter then argues that instead of relying on "these fully enforceable standards," the Department by the Consent Order "evades them," and deprives the State of "the benefit of clear law and precedent." (Commenter #12).

**Response:** The Department disagrees that the Consent Order "evades" or deprives the State of the benefit of any regulations, standards, or precedent governing corrective action. Quite the contrary, the Consent Order carefully preserves them. The cleanup standards, set forth in Section VIII of the Consent Order, are identical to those that would apply if corrective action were conducted under a permit, except that a broader range of contaminants are addressed. The corrective action process, set forth in Section VII, is also identical to the process that would apply under a permit. Section III.W.5 expressly preserves in the Consent Order all procedures that would apply under a permit. Moreover, any favorable legal precedent applies with equal force to corrective action conducted under a consent order and corrective action conducted under a permit.

[1] The Department has several legal arguments, not worth recounting here, it could advance to cover these contaminants in the corrective action provisions of a permit, but the legal authority is not as clear.

[2] The Department issued the original November 26, 2002 unilateral Order under section 74-4-13 of the HWA. That section covers "solid waste," which is a broader category than "hazardous waste" or "hazardous constituent."

Furthermore, corrective action for future releases from operating hazardous waste treatment, storage, and disposal units at LANL, as well as closure and post-closure care requirements for such units, will be required under the hazardous waste facility permit, not under the Consent Order, as provided in Section III.W.1 of the Consent Order.

**70. Comment:** One commenter proposes revising Section III.W of the Consent Order to clarify the status of sites that EPA has determined require no further action. The commenter proposes that if EPA has agreed with DOE on an a determination that no further action is required for a particular site, and the Department has not responded to such a determination, the determination should be considered final. The commenter further proposes that the Department should be required to respond to a recommendation for no further action within 90 days. (Commenter #15).

**Response:** The Consent Order does not include any investigation or cleanup requirements for any area of concern that EPA determined requires no further action, as expressly provided in Section III.A. Therefore, the status of these sites needs no further clarification. Under this provision, prior EPA decisions that no further action is necessary are accorded a degree of finality. Such determinations are not entirely final, however. As provided in Section III.T, the Department retains the authority to require the Respondents to conduct additional investigations or cleanup at any site, based on previously unknown conditions or new information, regardless of any prior determinations. Such a "reopener" provision is fairly standard in environmental cleanup agreements.

The Department should not be subject to any time limitation in deciding whether to approve a proposal that a site needs no further action. Such a decision – absent a later finding of new information – is final. Moreover, such a proposal can be very broad in scope and very complex, and the quality of the documentation supporting such a proposal can not be assured. Placing such a deadline on the Department would risk inducing final decisions that are not protective of human health and the environment.

## X. Integration With Permit – Modification of Permit – Class 3 Permit Modification to Remove Corrective Action Requirements (Section III.W.3.a)

**71. Comment:** One commenter states that the outcome of the permit modification to remove the corrective action requirements has already been chosen because the Department admits it "supports the Permit Modification." (Commenter #12).

**Response:** The Consent Order provides in Section III.W.3.a that the Respondents will request a modification to the hazardous waste facility permit for LANL to remove the corrective action requirements from the permit. The Department and the Respondents agree that such a permit modification is appropriate so that one document, the Consent Order, will govern cleanup at LANL. Even the commenter recognizes that it "would make no sense to have two separate, different enforceable documents, the Order and the permit." The Department's decision to use an order as the enforceable document to require corrective action, rather than the permit, is a decision that falls entirely within the Department's discretion and would not be the subject of a

hearing. The Department may hold a hearing on the permit modification, to inform the public, and to address other issues that might be raised by such a modification.

**72. Comment:** Another commenter notes the "inadequacy and incompleteness" of the Respondents' previous permit modification requests, and suggests that the last sentence of Section III.W.3.a of the Consent Order be revised to read: "The Department supports the concept of the Permit Modification." (Commenter #13).

**Response:** The Department believes that a fair reading of the last sentence of Section III.W.3.a commits the Department to supporting only a permit modification as stated in that section, and not to any flaws or details that may be in the Respondents' permit modification request. If the Respondents' request is seriously inadequate or incomplete, the Department is prepared to draft an adequate permit modification in response to the request.

**73. Comment:** One commenter suggests changing the second sentence in Section III.W.3.a from "corrective action shall be conducted under this Consent Order" to "corrective action shall be regulated under this Consent Order." Alternately, the commenter suggests adding the phrase "in accordance with the terms of" after "conducted." (Commenter #16).

**Response:** The sentence is accurate as written.

## Y. Integration With Permit – Modification of Permit – Class 3 Permit Modification for Corrective Action Complete (Section III.W.3.b)

**74. Comment:** One commenter suggests removing the word "only" from the third sentence in Section III.W.3.b, which currently reads: "…where controls are identified for a SWMU, only those controls…are enforceable under the Permit." (Commenter #16).

**Response:** The sentence is accurate as written. Use of the word "only" does not substantively change the meaning of the sentence.

**75. Comment:** The commenter asserts that Section III.W.3.b of the Consent Order is incomplete because it does not include the sequence of events following the Department's initiation of a permit modification. (Commenter #16).

**Response:** Once the Department initiates a permit modification, the process continues according to the regulations at section 20.4.1.901 NMAC. The Department does not believe it is necessary or appropriate to restate the permit modification process in the Consent Order.

## Z. Integration With Permit – Preservation of Procedural Rights (Section III.W.5)

**76. Comment:** One commenter states that the Consent Order requirements are, "in content and in effect, substantial modifications" of the hazardous waste facility permit for LANL, and should be subject to public notice and a hearing prior to approval. The commenter requests that the Department withdraw the Consent Order or make it subject to the permit modification process.

**Response:** The Department disagrees with the commenter that the requirements of the Consent Order are modifications of the hazardous waste facility permit for LANL. Although the Department could have imposed nearly identical investigation and cleanup requirements through a permit modification, it chose to place the requirements in an enforceable order. The Hazardous Waste Management regulations expressly provide for the use of an "enforceable document" with corrective action requirements in lieu of a permit. *E.g.,* 20.4.1.500 NMAC (incorporating 40 C.F.R. § 264.90(f)). Accordingly, the Department declines to withdraw the Consent Order.

**77. Comment:** The commenter suggests that the Consent Order does not provide for public hearings. The commenter asks what will be the content and timing of public hearings under the Order. The commenter also wants to know if hearings will be held for cleanup of all sites at LANL. (Commenter #12). Another commenter states that there is no outline of how the public participation process will work. (Commenter #17).

**Response:** The Consent Order provides in Section III.W.5 that the Order incorporates all rights and procedures afforded the public under the regulations at section 20.4.1.900 NMAC (incorporating 40 C.F.R. § 270.42) and section 20.4.901 NMAC. These regulations govern public participation for the issuance, suspension, revocation, and modification of permits, and they include the provisions for public notice and comment, administrative hearings, and judicial appeals.

The incorporation of these rights and procedures in Section III.W.5 will apply to the selection of cleanup actions, or remedies, at individual sites at LANL, and this is perhaps its most significant application. Under Section III.W.5 of the Consent Order, the Department will apply the same procedures to remedy selection under the Order as apply to remedy selection under a permit. The Department considers a remedy selection for any site that undergoes a corrective measures evaluation[3] to be a permit modification under section 20.4.901 NMAC, and a major modification under section 74-4-4.2 of the HWA. Section 74-4-4.2(H) of the HWA requires the Department to provide an opportunity for a hearing on any major permit modification.[4] Accordingly, all sites that will undergo cleanup under a corrective measures evaluation will be subject to public participation including an opportunity for a hearing during the remedy selection process. Prior to the selection of a remedy, the Department will provide the public with notice of the proposed remedy, according to the notice procedures of section 20.4.1.901.C NMAC. Also prior to selection of a remedy, the public will have an opportunity for a hearing. If a hearing is requested, the Department will hold a hearing according to the hearing procedures as described in section 20.4.1.901.F NMAC.

Section VII.D.7 of the Consent Order expressly provides there will be an opportunity for a hearing on remedy selection. However, given the number of comments on this issue, the Department has decided that this section should more explicitly mention the opportunity for a hearing. *Accordingly, the Department has revised Section VII.D.7 of the final Consent Order to*

[3] Corrective measures evaluation is described in Section VII.D of the Order.

[4] Even for a minor permit modification, section 74-4-4.2(I) of the HWA requires the Department to hold a hearing if the Secretary determines that there is significant public interest.

*state more explicitly that the public will have an opportunity for a hearing on remedy selection during the corrective measures evaluation process.*

The incorporation of these rights and procedures in Section III.W.5 will also apply to the decision that a remedy has been completed. Under Sections III.W.5 and VII.E.6.b of the Consent Order, sites at which the remedy has been completed will be listed on the permit under one of two lists: "Corrective Action Complete With Controls" or "Corrective Action Complete Without Controls." This action will be a permit modification. Again, the public will receive notice of the proposed modification, and the opportunity to request a hearing, in accordance with the procedures of section 20.4.1.901.F NMAC.

The content and timing of the hearings will be according to the hearing procedures in section 20.4.1.901.F NMAC. The content of the hearings will depend on the issues raised by the proposed remedy.

The Consent Order does not include a comprehensive outline of the public participation process. Rather, Section III.W.5 of the Consent Order references the governing regulations. In addition, Section VII.D.7 of the Order provides a partial description of the public participation process for remedy selection.

**78. Comment:** Commenter notes that no hearing is planned for MDA H in the Consent Order but that one was a identified as a possibility during the public meeting. (Commenter #12).

**Response:** A hearing on the remedy selection for MDA H, and a hearing on the determination that the remedy for MDA H is complete, will be held if requested, as explained above in response to Comment No. 77.

**79. Comment:** One commenter recommends more public participation at every step of the process than that specified in Section III.W.3. (Commenter #13).

**Response:** The Consent Order provides for public participation at key steps in the corrective action process, as explained in response to Comment No. 77.

**80. Comment:** A commenter asks in what way the Consent Order provides "clear legal standing and powers to citizens." (Commenter #12).

**Response:** The Department does not have the authority, through an order, permit, or any other mechanism, to "provide" any legal powers or standing to citizens. Citizens derive legal standing, rights, and "power" from the HWA and the regulations, and other federal and State law. The Consent Order provides for public participation, as authorized by law, as explained above in response to Comment No. 77.

**81. Comment:** The commenter wants to know "to what specific legal rights, in what forums, and on which occasions" does the Department refer in the term "public participation," and "to whom do those rights belong?" (Commenter #12).

**Response:** The term "public participation" as used in the Consent Order, and as the Department has used the term in reference to the Order, is a general term that refers to the procedures for notice and opportunity for a hearing as provided in the HWA and in the regulations at section 20.4.1.900 and 20.4.1.901 NMAC. These regulations are referenced and their procedures incorporated in Section III.W.5 of the Consent Order. The specific rights to which the term public participation refers are those rights the public has as set forth in the HWA and the regulations. The occasions to which it applies are also set forth in the HWA and the regulations, and are described above in response to Comment No. 77. Those rights belong to any member of the public.

## AA. Integration With Permit – Contingencies (Section III.W.6)

**82. Comment:** Two commenters raise concerns that the listed remedies are inadequate to accomplish cleanup if the Consent Order is vacated under Section III.W.6. The commenters recommend that this section be revised to include some binding agreement to ensure orderly cleanup in such event. (Commenters #9 and #18).

**Response:** The Department believes it is extremely unlikely that the Consent Order will be vacated due to any of the contingencies listed in Section III.W.6. If for some reason the Consent Order were to be vacated, the Department would take steps to modify the hazardous waste facility permit to incorporate most of the same corrective action requirements that are in the Consent Order.

**83. Comment:** Another commenter requests clarification on vacating the Consent Order under Section III.W.6 if the stated contingencies occur. The commenter asks whether the whole Consent Order would be vacated or just those activities specified in the Consent Order that are addressed by the permit modification. (Commenter #16).

**Response:** In the highly unlikely event that the Consent Order is vacated under Section III.W.6, the entire Consent Order would be vacated. There is no provision for partially vacating the Consent Order, nor was there intended to be.

**84. Comment:** The commenter suggests adding the words "and agreement" after the word "understanding" in the second sentence of Section III.W.6 because "it is essential that the Respondents both understand and agree to the terms of the Consent Order." (Commenter #16).

**Response:** The sentence is accurate as written. The statement merely states that the Department recognizes that the Respondents are entering into the Consent Order "based on their [the Respondents'] understanding that there shall be only one enforceable document for corrective action and that such instrument is this Consent Order." There is no implication that the parties are not in "agreement" on the terms of the Consent Order. To the contrary, by signing the Consent Order all parties agree to its terms.

## BB. Land Transfer (Section III.Y)

**85. Comment:** One commenter posits a hypothetical transfer of highly contaminated property to Los Alamos County for use as an industrial park. The commenter then asks what would assure that the transferred property would be cleaned up even to industrial-use standards. The commenter further asks what would be the public participation in such a transfer. The commenter also asks what occurs if, following transfer, the extent of contamination is found to be more severe than previously believed. The commenter suggests that Section III.Y of the Consent Order creates "too large a loophole." (Commenter #1). Two other commenters request public participation in land transfers. (Commenters #7 and #13).

**Response:** The Consent Order obligates the Respondents to complete cleanup of the property to the appropriate standards under the Order, regardless of any transfer of such property. The Hazardous Waste Management Regulations require a facility owner or operator to conduct corrective action "beyond the facility property boundary" as necessary to protect health and the environment. 20.4.1.500 NMAC (incorporating 40 C.F.R. § 264.101(c)). The Respondents cannot avoid their cleanup obligations under the Consent Order merely by transferring contaminated property to another party.

Section 120(h) of CERCLA, 42 U.S.C. § 9620(h), further obligates DOE to complete necessary cleanup prior to any transfer of federal property. Section III.Y.1.e of the Consent Order expressly provides that the Respondents must comply with section 120(h) of CERCLA for all transferred property, although DOE is obligated to comply with section 120(h) of CERCLA independent of the Consent Order requirement. Section 120(h)(3)(A)(ii)(I) of CERCLA generally requires DOE to complete "all remedial action necessary to protect human health and the environment" before transfer of property. There is an exception to this requirement, however. Section 120(h)(3)(C) of CERCLA allows a federal agency to defer compliance with this requirement under limited circumstances with the concurrence of the state governor. Most importantly, section 120(h)(3)(C)(ii)(II) and (III) and (iv) provides that if cleanup is deferred, the federal agency must nevertheless complete cleanup of the property after transfer.

Section III.Y.1.b(i) of the Consent Order allows the Respondents to complete cleanup of property after it has been transferred. However, such transfer can take place only with Department approval, and only in compliance with section 120(h) of CERCLA. Thus, under the Consent Order and under applicable State and federal law, the Respondents will be required to complete the appropriate cleanup of any transferred property.

Public participation in land transfers would be according to existing law. The Department's position is that transfer of LANL property requires a modification to the LANL hazardous waste facility permit. Under section 74-4-4.2 of the HWA, the Department must provide an opportunity for a public hearing on a permit modification. The Department would provide public notice and hold any hearing in accordance with the procedures in section 20.4.1.901 NMAC.

If, following transfer of contaminated property, the extent of contamination is found to be more severe than previously believed, the Department can require additional cleanup. In Section III.T of the Consent Order, the Department reserves the right to require more investigation and cleanup based on previously unknown conditions or new information. In most instances, the

Department would require the necessary additional investigation and cleanup under the Consent Order. The Department would also have the option to bring a new action, such as an administrative order or a judicial action for injunctive relief under section 74-4-13 of the HWA, or a citizen suit under section 310(a)(1) of CERCLA, 42 U.S.C. § 9659(a)(1).

The Department has given careful consideration to the issue of land transfer, and to the drafting of Section III.Y of the Consent Order. The Department does not believe that this section creates any loophole.

**86. Comment:** Two of the commenters state that the Respondents should complete all corrective action requirements prior to transfer. (Commenters #7 and #13).

**Response:** The Department generally agrees with this comment. However, the Department recognizes that it might not always be possible, consistent with federal law, for the Respondents to complete an adequate cleanup before transfer of the property takes place. Section III.Y.1.b of the Consent Order reflects this recognition. However, as explained above in response to Comment No. 85, any such transfer must be approved by the Department, and in compliance with section 120(h) of CERCLA.

**87. Comment:** These commenters state that land scheduled for transfer should be cleaned up to the condition it was before LANL began releasing pollutants into the environment, and that cleanup should not be based on intended future land use. (Commenters #7 and #13).

**Response:** The Consent Order, in Section VIII.B.1, provides that soil contamination at LANL must be cleaned up to levels that eliminate significant risk to human health and the environment (i.e., a total excess cancer risk of no more that $1 \times 10^{-5}$ and a hazard index of no greater than 1.0). The risk assessment takes into account reasonably foreseeable future land use, consistent with the Department's soil screening guidance. These soil cleanup standards apply to all contaminated soil at LANL, including property that will be transferred.

The Department does not have the legal authority to require cleanup to pristine or pre-existing conditions, unless it is necessary to protect human health or the environment.

**88. Comment:** These commenters request that the Consent Order state the statutory and regulatory bases for Section III.Y. (Commenters #7 and #13).

**Response:** Federal law provides for the transfer of several tracts of LANL property to other parties. Pub. Law 105-119, 111 Stat. 2523 (Nov. 26, 1997). Another federal law, CERCLA, in section 120(h), provides various safeguards to ensure that transferred federal property is cleaned up. Section III.Y of the Consent Order incorporates the safeguards in section 120(h) of CERCLA, as explained above in response to Comment No. 85. The Consent Order references CERCLA section 120(h).

**89. Comment:** One of these commenters further requests that the Consent Order state the statutory and regulatory basis for requiring deed restrictions on land transfers. The commenter expresses concern about the effectiveness of deed restrictions. (Commenter #13).

**Response:** The statutory basis of deed restrictions is section 120(h)(3)(A) of CERCLA, 42 U.S.C. § 9620(h)(3)(A). It requires certain deed restrictions on transfers of federal property that is or has been contaminated. The Department shares the commenter's concern about the effectiveness of deed restrictions. However, all property that will be transferred will be cleaned up, at a minimum, to standards consistent with industrial use. Moreover, Section III.Y of the Consent Order, as well as section 120(h) of CERCLA, provide safeguards to assure that deed restrictions are followed and, if necessary, enforced. For example, under Section III.Y.1.e of the Consent Order, the transferee must agree in the contract for sale of property that the deed restrictions are enforceable against the transferee by a citizen suit under CERCLA.

**CC. <u>Land Transfer – Notice and Meeting (Sections III.Y.1.a and III.Y.2.a)</u>**

**90. Comment:** One of the commenters requests that the public be given notice of the meeting under Section III.Y.1.a, and an opportunity to comment and to participate in the meeting. (Commenter #13).

**Response:** Section III.Y.1.a of the Consent Order provides that prior to transfer of any LANL property, DOE must meet with the Department and the transferee. The purpose of the meeting is simply to discuss the intended use of the transferred property. The Department does not see any benefit in allowing public participation in such meeting. The public will have an opportunity to participate in the selection of any remedy of contaminated sites on the transferred property through the corrective measures evaluation process, as provided in Section VII.D.7, and as explained above in response to Comment No. 77. The public will also have the opportunity to participate in the permit modification required for transfer of LANL property, as also explained above in response to Comment No. 77.

**91. Comment:** Two commenters state that the Consent Order should identify the consequences if DOE does not notify the Department of a decision to transfer land at least 120 days prior to the proposed transfer, as provided in Sections III.Y.1.a and III.Y.2.a. (Commenters #7 and #13).

**Response:** As with any other violation of the terms of the Consent Order, if DOE does not comply with the notice provision, the Department can bring an appropriate enforcement action, which could include assessing civil penalties or seeking injunctive relief. Some of the enforcement options available to the Department are described in Section III.U (Enforcement).

**DD. <u>Land Transfer – Department's Determination (Sections III.Y.1.b and III.Y.2.b)</u>**

**92: Comment:** A commenter suggests that the Consent Order should include a process for resolving disputes between the Department and DOE if the Department disagrees with the "DOE determination" that a property is suitable for transfer. The commenter suggests such a process. (Comment #15).

**Response:** Under Sections III.Y.1.b and III.Y.2.b of the Consent Order, it is the Department, not DOE that determines whether additional cleanup is necessary on property to be transferred, given the intended use of that property. If DOE disagrees with the Department's determination, DOE

can submit to the Department a written notice of dispute, which initiates the dispute resolution process under Section III.I of the Order. The dispute resolution provisions in Section III.I of the Consent Order apply to all disputes that arise under the Consent Order.

**93. Comment:** The commenter also suggests that the Consent Order should provide that the Department must respond to any work plans for investigation or cleanup of property slated to be transferred within 60 days of receipt. The commenter states that the Department should use the dispute resolution process if it disagrees with the content of the work plan. Commenter #15).

**Response:** The Department does not believe that a deadline should be placed on its review of a work plan for additional cleanup of LANL property scheduled for transfer. Unlike many of the other work plans that the Department will be reviewing under the Consent Order, the Respondents are not subject to any enforceable deadlines for completing work that is dependent on the Department's approval of a work plan under Section III.Y. Further, if the Department determines that such a work plan is inadequate, it would proceed in accordance with Section III.M of the Consent Order, which allows the Department to approve a work plan, approve it with modifications, or disapprove it. Section III.M applies to all work plans that the Respondents are required to prepare under the Consent Order.

**94. Comment:** The commenter states that the Consent Order should clarify that the Parties are required to meet with the transferee and allow the transferee to participate in the Parties' discussions and any dispute resolution process where the transferee has executed an agreement with DOE to acquire the land by long-term lease or in fee. (Commenter #15).

**Response:** Sections III.Y.1.a and III.Y.2.a of the Consent Order require appropriate representatives of the Department, the Respondents, and the transferee to meet within 30 days after DOE's notice of transfer to discuss the transferee's intended use of the property. The parties may then request that the transferee participate in further discussions, as may be appropriate. However, the Department does not believe it would necessarily be appropriate for the transferee to participate in discussions on the Department's determination whether additional cleanup of the property is necessary, or to participate in dispute resolution under Section III.I.

**95. Comment:** Another commenter states that the Department should notify both the Respondents and the proposed recipient of the property of its determination under Sections III.Y.1.b and III.Y.2.b even if the Department has concluded that no further corrective measures are necessary. (Commenter #16).

**Response:** Although the terms of Sections III.Y.1.b and III.Y.2.b of the Consent Order require the Department to notify only the Respondents of its determination whether additional corrective action measures are necessary on property proposed for transfer, the Department will, as a courtesy, send a copy of such notice to the intended transferee.

## EE. Land Transfer – Restricted Use (Section III.Y.1.d)

**96. Comment:** A commenter states that the Consent Order should provide for DOE and the Department to discuss and "negotiate" land use restrictions with the intended transferee. The

commenter states that land use restrictions should be "sufficient, and at the same time not too restrictive." (Commenter #15).

**Response:** The parties may discuss the land use restrictions with the intended transferee prior to transfer of the property, as may be appropriate. However, the Department does not believe it is appropriate for the land use restrictions to be "negotiated" with the transferee. The land use restrictions must limit the use of the property consistent with the land use that was assumed in conducting the risk assessment and determining the appropriate level of cleanup, as necessary to protect public health and the environment.

**97. Comment:** The commenter suggests that the 30 days allowed under the Consent Order for DOE to provide proposed deed restriction language to the Department, and to the transferee, prior to transfer should be increased to at least 60 days. The commenter believes such additional time will be needed for the parties and the transferee to "negotiate" the deed restrictions. (Commenter #15).

**Response:** Because the Department does not agree that the land use restrictions should be "negotiated" with the transferee, it does not believe the time period for the Department and DOE to agree on the language of the restriction needs to be increased. The Department anticipates that the proposed land use restriction language will not be lengthy and 30 days will be adequate for the parties to reach agreement on the language.

**98. Comment:** The commenter requests that the Consent Order require that notice of land use restrictions be given to the transferee and the local government having jurisdiction over the property. (Commenter #15).

**Response:** As a party to the deed, the transferee will receive notice of the land use restrictions contained in the deed. Although the Consent Order does not require the parties to provide the local government having jurisdiction over the property with notice of the land use restrictions, the Department agrees it would be beneficial to notify the local government of the land use restriction, and the Department will do so. In addition, the land use restriction will be recorded in the title records at the County Clerk's Office.

**99. Comment:** The commenter requests that the Consent Order clarify that DOE is not required to amend existing sales contracts between the United States and a transferee. (Commenter #15).

**Response:** The requirements of Section III.Y apply prospectively to future land transfers only.

**FF. <u>Land Transfer – Enforceability Against Transferee (Section III.Y.1.e)</u>**

**Other Issues:** The word "party" begins with a capital letter each time it appears in Section III.Y.1. However, in some places the word refers to the parties to the Consent Order, and in other places it refers to the parties to the contract for sale of LANL property. In the former usage it is a defined term and should begin with a capital letter, but in the latter usage it is not a defined term should begin with a lower case letter. *The Department has corrected Section III.Y.1.e of the*

*final Consent Order to make the word "parties" lower case in the second paragraph, second line, and the third paragraph, third line.*

**GG. Land Transfer – EPA Institutional Controls Tracking System (Section III.Y.1.f)**

**100. Comment:** Another commenter suggests that the time period for DOE to notify EPA of the land use restriction and identify the property subject to the restriction, so that EPA may include the property in its pilot institutional controls database, should be reduced from 90 to 30 days. (Commenter #13).

**Response:** While the Department agrees with the commenter that DOE should be able to notify EPA and provide EPA with the necessary information on the transferred property in less than 90 days, the Department does not believe 90 days is unreasonable.

**HH. Table III-1**

**101. Comment:** One commenter asks for clarification regarding the placement of Table III-1 at the end of Section III rather than in Section IX. (Commenter #8).

**Response:** Table III-1 is included in Section III because it lists the "Explosive Compounds" referenced in the definition of that term in Section III.B. Explosive compounds are included within the term "Contaminant," which is used throughout the Consent Order, not only in Section IX.

**II. Facility Investigation – General Requirements (Section IV.A)**

**102. Comment:** One commenter believes that the Respondents should be required to analyze samples for tritium or any other radionuclide to determine ages and to provide information on flow paths for a better understanding of the hydrologic system. (Commenter #14).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data. DOE makes this commitment in a letter from National Nuclear Security Agency Deputy Administrator for Defense Programs Everet Beckner to Environment Department Secretary Ron Curry, dated August 26, 2004, which is part of the administrative record for this Order and available for public inspection. The Department agrees that such information will provide a better understanding of the hydrologic system.

**103. Comment:** One commenter believes that the Respondents should be required to determine the composition and age of vadose zone water to help determine the presence of fast flow paths. (Commenter #14).

**Response:** The Department will consider this issue when reviewing relevant work plans.

**JJ. Groundwater Investigation (Section IV.A.3)**

**104. Comment:** A commenter requests clarity on how the Department determined the initial 8 watershed-specific periodic monitoring reports in Section IV.A.3.b, given that there are 10 watersheds and, therefore, there should be 40 quarterly monitoring reports. (Commenter #16).

**Response:** There are only 8 major watersheds at LANL. White Rock Canyon is considered a watershed for springs monitoring only. The disparity between the numbers of required reports and the apparent number of reports can be attributed to the following factors. First, the periodic monitoring of White Rock Canyon and other watersheds may be combined for reporting purposes. Second, not all required monitoring is conducted on a quarterly basis. Some watersheds or canyons may be monitored less frequently. In order to make the reporting requirements more manageable, the Department agreed to stagger the number of reports submitted the first year because of the large number of documents submitted during the first year of the Consent Order.

**105. Comment:** Another commenter states that the Consent Order does not insist on any real clean up (e.g., pump and treat) of Los Alamos Canyon where radionuclides and hazardous waste have been found. (Commenter #15).

**Response:** The commenter is correct that the Consent Order does not specify a remedy for Los Alamos Canyon. Until the nature and extent of contamination is adequately characterized, design of an appropriate remedy would be premature. After the investigation is complete, a remedy or remedies will be selected pursuant to the corrective measures evaluation process in Section VI.D. The public will be given the opportunity to participate in the remedy selection process as explained in response to Comment No. 77.

**106. Comment:** One commenter believes the groundwater background investigation report under Section IV.A.3.d of the Consent Order should include radionuclides. (Commenter #1).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**107. Comment:** One commenter believes the background investigation report under Section IV.A.3.d should be submitted before the Interim Groundwater Monitoring Plan (under Section IV.A.3.b) rather than 90 days after. (Commenter #16).

**Response:** The Department agrees with the commenter that it would be preferable for the Respondents to submit the background investigation report earlier. However, the parties agreed to the schedule in Section IV.A.3.d of the Consent Order. The Department expects to receive the background investigation report before the deadline in the Consent Order.

**108. Comment:** One commenter believes the Respondents should be required to store cores, rock samples, and soil samples for a minimum period of time or until the Department determines they may be discarded. (Commenter #14).

**Response:** Samples collected for analytical purposes will be held for the analytical holding times prescribed in the EPA document entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," publication SW-846, which is incorporated by reference in the Hazardous Waste Management Regulations. 20.4.1.100 NMAC (incorporating 40 C.F.R. § 260.11(a)(11)).

**109. Comment:** Another commenter states that the Consent Order does not address ground water monitoring wells drilled in the last five years that were improperly developed and are in violation of RCRA. (Commenter #17).

**Response:** Wells that may have improperly affected groundwater chemistry, for example, from the use of drilling fluids or by improper construction, will be addressed through the interim groundwater work plan required under Section IV.A.3.b to be submitted 90 days after the effective date of the Consent Order. Redevelopment or abandonment and redrilling are possible remedies for such improperly constructed or developed wells.

**110. Comment:** The commenter states there is no table for the schedule of non-compliant wells to be abandoned or re-drilled nor is there a procedure for the certification of RCRA wells that were improperly drilled and developed. (Commenter #17).

**Response:** Improperly constructed wells will be scheduled for rehabilitation or replacement in the interim groundwater work plan required under Section IV.A.3.b to be submitted 90 days after the effective date of the Consent Order.

**111. Comment:** One commenter suggests adding language in Section IV.A.3.f requiring the submission of a long-term monitoring plan for springs, similar to the requirement in the analogous subsections for wells. (Commenter #16).

**Response:** The Department agrees with this comment. *The Department has added language to Section IV.A.3.b (Groundwater Monitoring Plan) to clarify that watershed-specific monitoring plans will include springs.*

**112. Comment:** The commenter states that the requirements in item #4 of Section IV.A.3.f appear to apply to all sampling and not just spring sampling. (Commenter #16).

**Response:** The Department agrees with this comment. *The Department has removed the word "groundwater" in Section IV.A.3.f of the final Consent Order to clarify that these requirements are specific to springs.*

**113. Comment:** The commenter suggests modifying item #4 in Section IV.A.3.f to indicate that the required constituents to be sampled will be specified in the Interim Plan or the subsequent long-term monitoring plans. (Commenter #16).

**Response:** The reference to "site-specific, canyon-specific and Facility-wide work plans" in Section IV.A.3.f, item #4 refers to the Interim Plan and the long-term watershed-specific monitoring plans.

**KK. Sediment Investigation (Section IV.A.4)**

**114. Comment:** One commenter believes the sediment investigations under Section IV.A.4 should include radionuclides. (Commenter #1).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**115. Comment:** One commenter wants to know if geomorphic investigations as under Section IV.A.4 normally evaluate for the presence of contaminants. (Commenter #16).

**Response:** Geomorphic investigations and morphometry are used to help determine sample locations and quantity. The Department considers these investigations to be an effective tool for guiding sampling efforts in canyons where it may be impractical to sample the entire length of the canyon.

**116. Comment:** The commenter wants to modify item #5 in Section IV.A.4 to take into account both historical and current data when selecting sample locations. (Commenter #16).

**Response:** The current language in item #5 of Section IV.A.4 of the Consent Order does not preclude utilization of other information to establish sample locations. The Department will consider both current and historical data, as appropriate, and all other relevant information, in reviewing work plans.

**LL. Firing Sites (Section IV.A.5)**

**117. Comment:** One commenter believes that areas outside of the designated testing hazard zones that have not been designated for industrial land use should be remediated to residential or agricultural use levels, restricting industrial use to within the distinct footprint of "Manufacturing and Industrial" activities. (Commenter #1).

**Response:** Cleanup levels will be based on site-specific conditions and land use, and will be approved by the Department. Areas not designated as reasonably likely for industrial use will be cleaned up to levels consistent with other uses, such as residential, recreational, or agricultural.

**118. Comment:** Two commenters expressed concern about the deferral of investigation and corrective action for firing sites within the testing hazard zone, as provided in Section IV.A.5.b. (Commenters #7 and #13). One of the commenters notes that there is evidence that high explosive contamination is migrating through groundwater to the Rio Grande. (Commenter #13).

**Response:** Military munitions at active firing ranges are in many circumstances exempt from regulation, including corrective action, under RCRA and the HWA, as set forth in the regulations at 40 C.F.R. part 266, subpart M (incorporated by 20.4.1.700 NMAC). Although the Respondents will be cleaning up many sites contaminated with military munitions and munitions residue within the Testing Hazard Zone at LANL under the Consent Order, cleanup of many other sites will be deferred until the Testing Hazard Zone on which they are located becomes inactive. However, the Respondents may not defer cleanup of a site if the Department determines that the site may present an immediate threat to human health or the environment, for example, if the site is contributing to groundwater contamination.

**119. Comment:** These commenters also expressed concern that the Consent Order allows DOE to determine whether a Testing Hazard Zone is closed or inactive, and that determination is not subject to dispute resolution under the Order. (Commenters #7 and #13).

**Response:** The Department shares the commenters' concern. However, the Department recognizes that such a determination is wholly within DOE's authority. Although DOE will make the determination, the Consent Order provides in Section IV.A.5.b that such determination must be based entirely on the operation of the firing range, and that DOE must provide the Department with a written justification for its determination. Thus, DOE could not make a determination that a firing range is still active in an effort to evade cleanup. Although DOE's determination is not subject to dispute resolution, the Department retains the legal authority to bring an enforcement action if, for example, DOE determined that a firing range was still active without adequate justification.

**120. Comment:** One commenter suggests changing the title of Table IV-1 to "Sites to Undergo Corrective Action." (Commenter #16).

**Response:** The existing title of Table IV-1, "Non-Deferred Sites Within Testing Hazard Zones," is a more accurate description of the content and purpose of the table. The sites listed on Table IV-2, although presently deferred, will ultimately undergo corrective action. Moreover, many other sites at LANL that are not within Hazard Testing Zones are to undergo corrective action.

**MM. <u>Reporting (Section IV.A.6)</u>**

**121. Comment:** A commenter suggests cross-referencing Section IV.A.6 to Section IV.A.3.b, Groundwater Monitoring Plan. (Commenter #16).

**Response:** Section IV.A.3.b sets forth the requirements for an interim groundwater monitoring plan, which will eventually be replaced by watershed-specific long-term groundwater monitoring plans. Section IV.A.6 of the Consent Order sets forth the reporting requirements for periodic monitoring and sampling, and will continue in effect after the interim monitoring plan has been superceded by the long-term monitoring plans.

**NN. <u>Canyon Watershed Investigations (Section IV.B)</u>**

**122. Comment:** One commenter asks what the goals of the canyon watershed investigations are and how these investigations translate into corrective actions. The commenter asks what role the surface water Federal Facility Compliance Agreement will play. The commenter further asks how well the focus on entire watersheds comports with the Clean Water Act. (Commenter #1).

**Response:** The goals of the canyon watershed investigations are to determine nature, extent, and migration rate of contamination. This information will form one of the primary bases for determining remediation alternatives. The surface water Federal Facility Compliance Agreement between EPA and DOE will compliment these canyon watershed investigations by addressing surface water. The Consent Order is issued under the authority of the HWA, so it need not "comport with" the Clean Water Act. The Consent Order requirements are not, however, in any way contrary to or inconsistent with the Clean Water Act.

**123. Comment:** Two commenters believe that all characterization wells should be drilled in such a way that the wells can be transferred to the groundwater monitoring program. (Commenters #7 and #13).

**Response:** The Department agrees that characterization wells should be used wherever possible, if in appropriate locations, for the monitoring program. Appropriate locations for both characterization wells and monitoring wells are selected based primarily on geologic and hydrologic conditions.

**124. Comment:** One of these commenters suggests removing the second to last sentence in paragraph 3 in Section IV.B to remove the Department's option to not require a historical investigation report for each canyon watershed. (Commenter #13).

**Response:** The Department has retained the discretion not to require historical investigation reports if it deems that most of the watershed investigation is complete, or if adequate historical investigations have already been conducted and submitted to the Department, or if no historic data exists. Otherwise, the Department will require historical investigation.

**125. Comment:** This commenter suggests including the number of SWMUs and AOCs found in each watershed and the approval dates for already submitted reports. (Commenter #13).

**Response:** The Respondents are required in Section V.B to submit an updated list identifying all aggregate areas and the SWMUs and AOCs located within each aggregate area. Currently, the Department has only a draft version of this list.

**126. Comment:** Another commenter requests that the Consent Order include a table of watershed aggregate areas in Section IV.B. (Commenter #16).

**Response:** The Department agrees with this comment. *The Department has added a list of aggregate watershed areas in Section IV.B. of the final Consent Order.*

**127. Comment:** The commenter also suggests including a list of the six canyon watersheds and their component canyons in Section IV.B. (Commenter #16).

**Response:** The tributary canyons of the canyon watersheds are listed in the "Background" sections for the canyon watersheds: Sections IV.B.1.a, IV.B.2.a, IV.B.3.a, and IV.B.4.a. Sandia Canyon (Section IV.B.5) and the other canyons (Section IV.B.6) do not have major tributary canyons.

**128. Comment:** The commenter identifies contradictory language in Section IV.B that may result in gaps in the watershed investigations. The commenter requests that the Department add a requirement for the Respondents to submit a comprehensive work plan addressing all known sources of contamination including a timeline showing that all sites will be completed, and completed timely. (Commenter #16).

**Response:** The current language will not result in gaps in investigations. The "boundary" between canyon and mesa top investigations is defined as being at the toe of the colluvial wedge. The Department will ensure, through the work plan approval process, that LANL's work does not result in any data gaps.

**129. Comment:** The commenter states that the requirement in Paragraph 4 of Section IV.B to list and describe all known and suspected material disposed is too broad and open ended. (Commenter #16).

**Response:** Comprehensive information on the type of material disposed of, or possibly disposed of, at these sites is necessary to conduct an adequate investigation and remediation. Without such information, samples might be analyzed for an incomplete suite of contaminants, and some contaminants might be missed. The requirement is not open-ended, and the Respondents should be able to gather the available information. Given the lack of documentation on LANL's past disposal practices, information on materials that are suspected to have been disposed of is also necessary.

**130. Comment:** The commenter identifies a discrepancy between item #7 in Section IV.B, which requires that all sampling events be reported, and items #13 and #14, which require only the results from the four most recent sampling events. (Commenter #16).

**Response:** Reporting requirements in item #7 include one-time sampling events and historical studies. Items #13 and #14 require reporting of periodic monitoring and sampling data.

**131. Comment:** The commenter states that the topic of the last paragraph of Section IV.B refers to the historical investigation reports and not the summaries. The commenter suggests the language should be modified accordingly. (Commenter #16).

**Response:** The last paragraph in Section IV.B of the Consent Order refers to the summaries required within the historical investigation report.

**132. Comment:** The commenter identified several work plans in Section IV.B that are not listed on the schedule in Section XII. (Commenter #16).

**Response:** The tables in Section XII of the Consent Order do not list all the work plans that the Respondents must submit. Listing all submittals in Section XII would make the chapter unwieldy. The parties have agreed that only the major submittals be included. Submittals not listed in Section XII are still requirements of the Consent Order.

**133. Comment:** The commenter identifies repetitive language in Section IV.B regarding long-term monitoring requirements in the last sentence of the Groundwater Monitoring sections and in the last sentence of the Investigation Report sections for each canyon watershed. (Commenter #16).

**Response:** The Department acknowledges the repetition, but does not believe it creates any confusion or ambiguity.

**OO. <u>Los Alamos/Pueblo Canyon Watershed (Section IV.B.1)</u>**

**134. Comment:** The commenter points out that Section IV.B.1 is the only canyon watershed section that discusses possible subsequent investigations. The commenter asks whether this difference is deliberate or an oversight. (Commenter #16).

**Response:** The different language in Section IV.B.1 is intentional. The language reflects that the Respondents have already conducted sediment, surface water, biota, and alluvial groundwater investigations in Los Alamos/Pueblo Canyon. By including language for further possible investigation, the Department and the Respondents agree that the work already conducted may satisfy the requirements of the Consent Order.

**135. Comment:** The commenter suggests that the second, third, and part 4 of the fourth paragraph of Section IV.B.1.b.ii should all be combined into a new section IV.B.1.b.vi entitled "Subsequent Investigations." That section should start with the old third paragraph and end with either the second paragraph or part 4 of the fourth paragraph, both of which are identical and only one is needed. (Commenter #16).

**Response:** The Department does not believe that such reorganization is necessary. The existing language does not create any confusion or ambiguity.

**136. Comment:** The commenter believes there are numerous inconsistencies in Section IV.B.1.b.iv. The commenter points out that items #1 and #3 refer to "groundwater samples" and items #2 and #4 refer to "alluvial groundwater samples." The commenter criticizes a "lack of attention of consistency of terms." (Commenter #16).

**Response:** The Department disagrees that there is any inconsistency in the use of the terms "groundwater samples" and "alluvial groundwater samples" in Section IV.B.1.b.iv, nor was there any "lack of attention [to] consistency of terms." Items #1 and #3 specify which "alluvial" wells are to be sampled in Los Alamos and Pueblo Canyons. It is unnecessary (and perhaps a little redundant) to refer to groundwater samples from alluvial wells as "alluvial groundwater samples." Items #2 and #4 specify the laboratory analyses that are to be performed on the alluvial groundwater samples collected from the wells in Los Alamos and Pueblo Canyons,

which is different from the laboratory analysis that is to be performed on intermediate and regional groundwater samples, specified in items #7 and #10. In items #2 and #4, the term "alluvial" is necessary to distinguish those samples from the "intermediate" and "regional" samples in items #7 and #10.

**137. Comment:** Two commenters request clarification on why the combined Los Alamos/Pueblo Canyon investigation report under Section IV.B.1 will not address the intermediate and regional groundwater investigations. (Commenters #14 and #16).

**Response:** The investigation report for Los Alamos/Pueblo Canyon under Section IV.B.1, which is currently under Department review, presents the results for the sediment and alluvial groundwater investigations separately, on a shorter schedule, in an effort to accelerate possible remedial actions for this segment of the canyon bottom. The intermediate and regional groundwater investigations will be reported under a separate investigation report or reports under Sections IV.B.1.b.ii and IV.B.1.b.iii of the Consent Order and the associated work plans. That investigation report (or reports) has not yet been completed.
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**Other Issues:** Item #1 in Section IV.B.1.b.iv does not specify that the monitoring wells from which samples are to be collected are located in Los Alamos Canyon. *For clarification, the Department is adding the words "Los Alamos" to Section IV.B.1.b.iv, item #1.*

## PP. Water Canyon/Cañon de Valle Watershed (Section IV.B.3)

**138. Comment:** One commenter wants to know if the investigation report for the Water Canyon/Cañon de Valle watershed required under Section IV.B.3.b.v includes investigation for Potrillo, Fence, Ancho, Chaquehui, and Indio Canyons. (Commenter #13).

**Response:** The investigation report for Potrillo and Fence Canyons is due August 31, 2011; the investigation report for Ancho, Chaquehui, and Indio Canyons is due February 28, 2011. Although all of the canyons are included in one work plan, the work will be completed and reported in the separate investigation reports.

## QQ. Pajarito Canyon Watershed (Section IV.B.4)

**139. Comment:** One commenter suggests rewording item #2 in Section IV.B.4.b.iv to read, "Any additional regional aquifer wells specified in the approved work plan shall also be installed." (Commenter #16).

**Response:** This change is not necessary. Under Section III.M.1 of the Consent Order, any addition to or change in the requirements of the Consent Order that the Department approves in a work plan become applicable and enforceable.

## RR. Technical Area Investigations (Section IV.C)

**140. Comment:** One commenter asks if radionuclide data will be provided analogous to hazardous constituent data under Section IV.C. (Commenter #1).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**141. Comment:** One commenter believes the requirements to remove waste from pits on the south side of DP Road, a large area on the north side of Pajarito Road, and at TA-54 should be omitted from the Consent Order. (Commenter #6).

**Response:** There are no *a priori* specific requirements under Section IV.C, or elsewhere in the Consent Order, to excavate any waste from these or any other sites at LANL. Remedial alternatives have not been proposed, evaluated, or selected. If and when the Respondents propose, or the Department requires, excavation or any other remedy for a MDA at TA-54 or elsewhere, the public will be given the opportunity for a hearing on the remedy selection, as explained above in response to Comment No. 77.

**142. Comment:** One commenter believes TA-49 should be a high priority and clean up should be addressed in the Consent Order. The commenter believes technology exists today for tackling clean up and that long-term monitoring may result in a more extensive and expensive problem to remedy. The commenter also states that the experience, knowledge, and capability to clean up the site may not be available in the future. (Commenter #10).

**Response:** The Department will require the Respondents to gather and evaluate information on technology to clean up MDA AB shafts at TA-49 as part of the corrective measures evaluation process under Section VII.D. That process, which will include public participation, has not yet been completed for TA-49. The Department does not agree that the experience, knowledge, or capability to clean up the site may somehow be lost during the corrective measures evaluation process.

**143. Comment:** One commenter notes that a requirement to characterize fractures at TA-10 is not included in Section IV.C.5, unlike the requirements for other technical areas, and asks if this is an oversight. (Commenter #14).

**Response:** The commenter is correct; the omission was an oversight. *The Department has included a requirement to characterize fractures at TA-10 in Section IV.C.5.c.iii of the final Consent Order.*

**Other Issues:** In Section IV.C.4.a, Consolidated Unit 49-001(a)-00 was in two places mislabeled as 49-001(a)-99. *The Department has revised Section IV.C.4.a of the final Consent Order to correct the references to Consolidated Unit 49-001(a)-00.*

**Other Issues:** In Section IV.C.5.c.iv, the abbreviation "HE" is erroneously used rather than the defined term "Explosive Compounds." *The Department has revised Section IV.C.5.c.iv of the final Consent Order to substitute the defined term "Explosive Compounds" for "HE."*

## SS. Investigation for Other SWMUs and AOCs (Section V) and On-Going Investigations (Section VI)

**144. Comment:** One commenter asks if radionuclide data will be provided analogous to hazardous constituent data under Sections V and VI. (Commenter #1).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**145. Comment:** Two other commenters request that public participation be provided for other SWMU's and AOC's under Section V. (Commenters #7 and #13).

**Response:** The Consent Order provides for public participation in the corrective action process for all SWMU's and AOC's, as explained above in response to Comment **No. 77**.

## TT. Corrective Measures (Section VII)

**146. Comment:** One commenter states that there are no specific requirements in the Consent Order to clean up anything to any specific standard by any specific date. (Commenter #12). Another commenter states that the Consent Order falls short of real public protection as it only outlines work plans, studies, assessments and sampling. (Commenter #17).

**Response:** The Consent Order contains many specific requirements for cleanup at LANL. Many specific cleanup standards – for groundwater and surface water – are required under Section VIII. Many specific cleanup deadlines are required under Section XII. Although the Consent Order is necessarily not specific as to the actual final remedies, Section VII of the Consent Order requires cleanup of contamination at the LANL facility. Specific requirements for cleanup will be identified following site-specific investigation and during the corrective measures evaluation process under Section VII.D, which provides for public participation in the remedy decision.

**147. Comment:** One commenter suggests that "passive attenuation" for 50 or 100 years or longer is compatible with the Consent Order. (Commenter #12).

**Response:** All possible remedial alternatives may be evaluated in a corrective measures evaluation, including natural attenuation as stand alone remediation or as part of a combination of alternatives. However, passive attenuation would be evaluated in comparison with other more aggressive remedial alternatives. Alternatives that clean up groundwater more quickly, and therefore reduce risk to human health and the environment (groundwater is part of the environment), would be preferred.

## UU. Interim Measures (Section VII.B)

**148. Comment:** One commenter requests that Section VII.B.5 specify a maximum response time for a written Department response to the Respondents' proposal for emergency interim measures. (Commenter #8).

**Response:** The Department agrees with this comment. *The Department has changed Section VII.B.5 of the final Consent Order to allow the Department three business days to respond to the Respondents' proposal for emergency interim measures.*

**149. Comment:** Another commenter is concerned that the Respondents are required to obtain advance approval to implement emergency interim measures and that the Respondents are not allowed to take preventative actions unless the Department approves them. The commenter suggests including language that allows Respondents to take immediate actions to control or contain contamination when it is due to forces of nature or man-made accidents. (Commenter #16).

**Response:** Section VII.B.5 allows the Respondents to implement emergency interim measures without prior approval from the Department "if circumstances arise resulting in an immediate threat to human health of the environment such that initiation of emergency interim measures are necessary prior to obtaining written approval." The Respondents must notify the Department within one day of taking such action.

## VV. Corrective Measures Evaluation (Section VII.D)

**150. Comment:** One commenter asserts that the Consent Order presupposes "a class of remedies" for MDA H, which does not include waste removal. The commenter believes that, if waste removal is the chosen remediation, the schedule does not allow time to implement it. (Commenter #12).

**Response:** The Consent Order does not presuppose any remedies. The commenter is correct that certain more extensive remedial actions might not be possible within the agreed schedule. However, as provided in Section III.J.2 of the Consent Order, the Respondents may request, and the Department may approve, an extension to any deadline for good cause. The Department has negotiated a fairly tight schedule in the Consent Order because it is generally much easier to extend deadlines than to shorten them. The Department recognizes, and expects, that extensions to the schedule will be necessary during implementation of the Consent Order. However, such extensions must be for good cause, and must be approved by the Department. If the selected remedy will necessarily require more time to implement than is provided in the schedule in Section XII, the Department would certainly consider that to be good cause for an extension.

The Department is currently evaluating the Corrective Measures Study (CMS) that the Respondents prepared for MDA H, in accordance with Section IV.C.1.d of the Order. The CMS contains an analysis of remedial alternatives, one of which includes removal of waste. The Department has not yet selected a remedy for MDA H. Before a final decision is made on remedy selection, the public will have an opportunity to participate in the decision, as explained above in response to Comment No. 77.

**151. Comment:** The commenter asserts that *de facto* agency decisions have already been made regarding the remedy for MDAs G, H, and L, and other sites. (Commenter #12).

**Response:** The Department has not yet made any decisions regarding final remedies for these sites. Before a final decision is made on remedy selection, the public will have an opportunity to participate in the decision, as explained above in response to Comment No. 77.

**152. Comment:** Another commenter suggests combining Section VII.D.2 with Section XI.F, which is also titled Corrective Measures Evaluation Report. (Commenter #16).

**Response:** Although these sections have the same title, they are quite different, and belong in different places in the organization of the Consent Order. Section VII.D.2 provides guidance on content of a corrective measures evaluation, while Section XI.F provides the report format in which the evaluation should be presented.

**153. Comment:** Two commenters suggest that the cost evaluation criterion for remedy selection include capital, operation, and maintenance costs now and up to 50 years in the future. The commenters believe that the Respondents should provide a cost comparison and uncertainties analysis for cleaning up now and monitoring into the future. (Commenters #7 and #13).

**Response:** The cost estimate conducted through the CME process for activities such as long-term monitoring of remedial actions will be considered for monitoring periods appropriate for the remedy, which in some cases could exceed 50 years. The CME process will evaluate costs for remedial alternatives that include, among other things, complete cleanup in the short-term (such as complete removal) and long-term monitoring associated with other remedial options.

**154. Comment:** One commenter believes the text of Section VII.D.6 does not address the subject of the section. (Commenter #16).

**Response:** Because the Consent Order uses slightly different terminology than does EPA guidance for corrective action under RCRA, Section VII.D.6 clarifies that a corrective measures evaluations conducted under the Consent Order is equivalent to a corrective measures study under RCRA.

**WW. <u>Corrective Measures Implementation (Section VII.E)</u>**

**155. Comment:** One commenter believes there should be a provision for incorporating all steps under Corrective Measures Implementation into the schedule of milestones. (Commenter #16).

**Response:** A schedule including milestones will be submitted to the Department in a work plan for each corrective measures implementation.

**156. Comment:** A commenter believes the Respondents should not have sole control over the content and implementation of its Community Relations Plan under Section VII.E.4 because of their poor history of public responsiveness. (Commenter #17).

**Response:** Submittal of a community relations plan is required under the hazardous waste facility permit for LANL. The community relations plan is subject to Department review.

**157. Comment:** One commenter wants to add a new section entitled "Community Relations" (III.Z) that would require a community relations plan to be submitted to the department for approval. The plan might include community notifications and updates regarding site activities, a public repository for reports and data, public comment opportunities, public meetings or hearings and meetings with local officials. The commenter also suggests modifying Section VII.E.4 to reference the proposed new section. (Commenter #11).

**Response:** Submittal of a community relations plan is required under the hazardous waste facility permit for LANL, and LANL has submitted such a plan to the Department. The plan includes many of the items the commenter suggests. The plan will be subject to revision when the Department renews the permit.

**158. Comment:** A commenter wants a mechanism for public participation in the form of a public participation plan, similar to one done for Sandia National Laboratories. (Commenter #13). Another commenter recommends a comprehensive, "across-the-board" community relations plan. (Commenter #18).

**Response:** Submittal of a community relations plan is required under the hazardous waste facility permit for LANL, and LANL has submitted such a plan to the Department. The plan will be subject to revision when the Department renews the permit.

## XX. Accelerated Cleanup Process (Section VII.F)

**159. Comment:** Two commenters state that there should be public participation in the accelerated cleanup process under Section VII.F. (Commenters #1 and #11). One of the commenters notes the possibility that the accelerated cleanup process could be abused. (Commenter #1).

**Response:** The Department shares the commenter's concern that the accelerated cleanup process might be abused. To prevent such abuse, Section VII.F of the Consent Order limits the circumstances under which accelerated cleanup may be implemented to "presumptive remedies at small-scale and relatively simple sites where groundwater contamination is not a component of the accelerated cleanup, where the remedy is considered to be the final remedy for the site, and where the field work will be accomplished within 180 days of the commencement of field activities." Although the Consent Order does not provide for public participation in accelerated cleanup actions, the Department would not approve the accelerated cleanup process for sites having significant issues of interest to the public.

**160. Comment:** Another commenter suggests including in Section VII definitions for "corrective measures" and "corrective actions" because they are used interchangeably in Section VII.F. (Commenter #16).

**Response:** In Section VII.F of the Consent Order, the term "accelerated corrective measures" refers to accelerated cleanup actions that the Department must approve before the Respondents can begin implementation. The term "accelerated corrective action" refers to accelerated cleanup actions that the Respondents can implement without Department approval, at their own risk, if the Department has not approved or disapproved a work plan within 30 days from submission of the work plan. Although the Consent Order does not provide any further distinction between these terms, the Department retains the authority to disapprove the work plan, and to disapprove the completion report, in either case. Otherwise, the terms "corrective action" and "corrective measures" are used interchangeably throughout the Consent Order to refer to the full range of investigation and cleanup actions.

**161. Comment:** The commenter notes that the Accelerated Corrective Measures Work Plan section references Sections III.M and XI.B while the Accelerated Corrective Action Work Plan only references Section XI.B. (Commenter #16).

**Response:** Because Accelerated Corrective Action Work Plans do not need prior approval before implementation by the Respondents, not all of the provisions in Section III.M apply.

## YY. Cleanup and Screening Levels (Section VIII)

**162. Comment:** One commenter states that the Consent Order allows the Respondents to clean up the entire LANL facility to standards based on industrial use. The commenter states that the Consent Order fails to require "specificity" in the designation of future land use. The commenter states that the Department has "preemptively surrendered" this issue, and calls it "an egregious (if not fatal) flaw" in the Consent Order. (Commenter #1)

**Response:** The Department disagrees with the commenter that the provisions of Section VIII of the Consent Order, which govern screening and cleanup levels, are flawed. Although these provisions would, in appropriate circumstances, allow the Respondents to clean up soil contamination to levels consistent with industrial use, the Consent Order ensures that any such cleanup will be protective of human health and environment.

To begin with, it is important to recognize that under Section VIII.A, ground water contamination must be abated to WQCC numerical standards or federal Maximum Contaminant Levels (MCL's), whichever is more stringent, regardless of future land use. The only exception would be a variance under Section VIII.E. Likewise, cleanup of surface water contamination must meet State standards under Section VIII.C, unless a variance is granted. Thus, future land use determinations are applicable only to cleanup of soil contamination.

Furthermore, contrary to the commenter's suggestion, the Respondents would not be able to make a "wholesale" designation of all LANL property as "'industrial use' in perpetuity." Nor will the Department make any assumption as to future land use. Each contaminated site at LANL – each SWMU and each AOC – will be subject to an individual risk assessment and an individual designation of future land use (although similarly situated sites might occasionally be combined for administrative efficiency). Not all of LANL property is currently used, or is likely to be used in the future, for industrial use. For example, some of the property is currently used

for recreational purposes. Some of the property abuts residential areas, and might be given an "extended backyard" land use designation. Property proposed for transfer might be designated for residential, agricultural, or other future uses. Sites located on such property would be cleaned up to levels consistent with such future land use.

In fact, several land use designations other than industrial have already been proposed for property on and around the LANL facility, although most of the designations so far have been for property that is either outside the LANL facility or scheduled for transfer. On June 25, 2002, the Department approved an extended backyard land use designation for Acid Canyon. Acid Canyon is adjacent to a residential area, near the high school, and several hiking and bicycling trails run through it. Although Acid Canyon was transferred to Los Alamos County many years ago, it is nevertheless part of the LANL cleanup. In the April 2004 Investigation Report for Los Alamos and Pueblo Canyons, which is currently under Department review, DOE and UC have proposed a variety of land use designations – construction worker, recreational, extended backyard, and residential – for various sections of the canyons, and none of them are industrial. Los Alamos and Pueblo Canyons are also adjacent to residential areas. Part or this property, but not all of it, is currently scheduled for transfer to the County. DOE and UC have also proposed a residential use scenario for SWMU 21-013(d)-99 at TA-21. This property is also scheduled for transfer to the County.

The risk assessment would cover not only risk to human health based on expected future land use, but ecological risks, as well. At some sites at LANL, ecological risks might prompt more stringent cleanup levels than the designated human use.

Moreover, sites that are cleaned up to contaminant levels based on industrial land use, or similar uses, will be subject to land use restrictions, as provided in Section III.W of the Consent Order. The land use restrictions can be enforced against the Respondents. Section III.Y contains provisions, based on Section 120(h) of CERCLA, that allow the land use restrictions to be enforced against subsequent property owners. If land use were to change contrary to the land use restrictions, the Department would have the authority to seek to stop the inconsistent land use, or to require further cleanup. In Section III.T of the Consent Order, the Department reserves the right to take further action to require cleanup based on new information. Changed land use would be such new information.

Taking future land use into consideration is consistent with the Department's current practice in selecting soil cleanup remedies. The Department's soil screening guidance, referenced in Section VIII.B, expressly provides for soil cleanup to levels consistent with industrial land use. Thus, the Department has not "preemptively surrendered" anything in Section VIII of the Consent Order.

Finally, future land use designation for a site will be an element of remedy selection, and will be subject to the public hearing, if one is requested, on the remedy selection. If a member of the public believes that the Department has proposed to approve an improper future land use designation, that person will have the opportunity to challenge that proposed designation in a hearing.

**163. Comment:** Several commenters want the Department to adopt EPA's screening level of $10^{-6}$ risk from single pollutants in addition to a total target risk to individuals of $10^{-5}$. (Commenters #1 and #13).

**Response:** The Department has selected a target total excess cancer risk level of $10^{-5}$ for establishing cleanup levels for regulated substances. Use of a target level for total risk allows levels for individual contaminants to be adjusted to compensate for the number of contaminants present at a site while ensuring that the overall residual risk has a consistent cap from site to site. Also, the State Water Quality Control Commission (WQCC) has selected a $10^{-5}$ target risk for its toxic pollutants list.

**164. Comment:** Several commenters believe the cleanup level for polychlorinated biphenyls (PCB's) of 1 mg/kg is not strict enough and should be lowered to 0.22 mg/kg for soil. (Commenters #1 and #13).

**Response:** Department guidance, *Technical Background Document for Development of Soil Screening Levels*, referenced in Section VIII.B.1 of the Consent Order, contains a default cleanup level for PCB's of 1 mg/kg for soil. The guidance includes procedures for calculating an alternate cleanup level if the default level is not used.

**165. Comment:** Those commenters also believe that the screening level for perchlorate in groundwater should be 1 ppb. (Commenters #1 and #13).

**Response:** The Consent Order applies a screening level of 4 parts per billion (ppb) for perchlorate based on current EPA guidance. To date, the Environmental Improvement Board, the WQCC, or the EPA has not adopted a groundwater standard or maximum contaminant level. If and when such a standard is adopted, it will be applicable under the Consent Order.

**166. Comment:** One commenter wants the Department to explain how it will ensure that it will stringently review requests for variances from cleanup levels. (Commenter #1).

**Response:** To obtain a variance from groundwater cleanup standards established by the WQCC, Section VIII.E of the Consent Order provides that the Respondents must follow the process specified in the WQCC regulations, 20.6.2 NMAC. To obtain a variance from any other standard, Section VIII.E provides that the Respondents must demonstrate to the Department that achieving the standards would be impracticable.

**167. Comment:** Several commenters state that there should be a provision for public comment on requests for a variance under Section VIII.E. (Commenter #1, #11, and #13). One of the commenters states that there must be a public process associated with any request for a variance not involving a WQCC standard. (Commenter #13).

**Response:** Site-specific cleanup standards, including variances from regulatory standards, will be selected as part of the corrective measures evaluation process under Section VII.D. This process includes public participation, as explained above in response to Comment No. 77. Moreover, the WQCC regulations specify a process, which includes public participation, for any

variance from a WQCC standard; under Section VIII.E of the Consent Order, the Respondents must follow this process for any variance from a WQCC standard.

**168. Comment:** One commenter recommends that a collective dose target risk for radioactive and non-radioactive pollutants be established. (Commenter #13).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order. The Department expressly reserves the right, in Section III.T of the Order, to bring a separate action to require monitoring, reporting, or cleanup of radionuclide contamination.

**169. Comment:** One commenter recommends that the most restrictive use scenario for all substances under review be added to the Consent Order. The commenter recommends developing cleanup values for the agricultural scenario for non-radioactive pollutants. (Commenter #13).

**Response:** Under the Consent Order, cleanup levels will be developed for individual sites, taking into consideration anticipated future land use. Cleanup levels for various types of agricultural land use will be developed as necessary on a site-specific basis.

**170. Comment:** One commenter requests clarification on why the second paragraph of Section VIII is included, because it is repetitive of Sections VIII.A.1.a and VIII.B.1.b. (Commenter #8).

**Response:** While the second paragraph of Section VIII, and Sections VIII.A.1.a and VIII.B.1.b of the Consent Order discuss screening levels for perchlorate and are somewhat repetitive, they are not entirely so. The second paragraph of Section VIII provides that the Respondents will comply with any perchlorate standards set by the New Mexico Environmental Improvement Board, the WQCC, or EPA; the other sections do not. Sections VIII.A.1.a and VIII.B.1.b provide greater detail on application of the perchlorate screening levels.

**171. Comment:** The commenter asks for clarification why screening levels for soil and groundwater exist while a discussion of screening levels for surface water perchlorate does not. (Commenter #8).

**Response:** Surface water requirements are contained in a Federal Facility Compliance Agreement between EPA and DOE.

**172. Comment:** One commenter wants the Department to continually update information about the risk from radioactive and non-radioactive pollutants. (Commenter #13).

**Response:** The Department will apply up to date information and standards in conducting risk assessments. The Department posts current and updated risk assessment procedures on its website.

**173. Comment:** A commenter states that the clause requiring the Respondents to determine the nature and extent of perchlorate groundwater contamination is "subjective and out of place" in Section VIII.A.1.a. (Commenter #8).

**Response:** The issue of perchlorate contamination at LANL has been a controversial one, as demonstrated by the comments that DOE and UC submitted on the Department's original draft unilateral order of May 2, 2002. This clause in Section VIII.A.1.a clarifies that the Respondents must investigate perchlorate contamination at the LANL facility, based on the specified screening levels, notwithstanding that no WQCC standard or federal maximum contaminant level currently exists for perchlorate. The requirement is not "subjective."

**174. Comment:** A commenter wants clarification why the Consent Order requires comparison to $10^{-5}$ screening levels for non-carcinogenic compounds and comparison to $10^{-6}$ screening levels for carcinogenic compounds. The commenter states the levels should be equivalent. (Commenter #14).

**Response:** A comparison to $10^{-6}$ screening levels is only used when there is no toxicological information available for the carcinogen. In all other instances, the Department compares contaminants to the $10^{-5}$ screening levels for carcinogenic substances and screening levels corresponding to a hazard index of 1 for non-carcinogenic substances.

**175. Comment:** A commenter requests a definition for the term "impracticability." (Commenter #13).

**Response:** EPA guidance defines technical impracticability as "a situation where achieving groundwater cleanup levels associated with final cleanup goals is not practicable from an engineering perspective." The term "engineering perspective" refers to factors such as feasibility, reliability, scale or magnitude that it was not technically practicable. The third paragraph of Section VIII.E of the Consent Order describes some of the factors that the Department may consider in determining impracticability.

## *ZZ.* <u>Investigation and Sampling Methods and Procedures (Section IX)</u>

**176. Comment:** Two commenters note that Section IX does not include provisions for managing and notifying the Department of changes in investigation and sampling procedures during field activities. The commenters suggest providing language to distinguish between what changes can be reported in investigation reports and what changes constitute a stop in field work and possible work plan revision. (Commenters #16 and #18).

**Response:** Section IX.B.2.b of the Consent Order provides requirements on notifying the Department and receiving approval from the Department of changes encountered during drilling and soil, rock, and sediment sampling. Section XI.C.7 provides requirements for reporting any and all altered work in the investigation report.

**177. Comment:** One of the commenter recommends adding a list prioritizing the Department's investigation techniques or methodologies to help Respondents develop work plans that are more immediately acceptable to the Department. (Commenter #18).

**Response:** The Department does not believe such a list would be useful because techniques and methodologies are dependent on specific site conditions (e.g., drilling into weathered tuff or competent bedrock), contaminants (e.g., metals or hydrocarbons), and investigation objectives (e.g., determining contaminant source or determining extent of contamination), among other things. In addition, new techniques and methodologies may be introduced or old ones may change. The Department will select and approve of investigation techniques and methodologies on a site by site basis.

**178. Comment:** Another commenter states that DOE should be required to provide data on radioactive constituents under Section IX. (Commenter #1).

**Response:** As explained above in response to Comment No. 26, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**179. Comment:** Another commenter points out the redundancy between Section IX.B.2.b.ii and Section IX.B.2.j regarding the discussion of split barrel sampling using brass sleeves. (Commenter #8).

**Response:** Section IX.B.2.b.ii discusses soil and rock sample collection procedures. Section IX.B.2.j discusses sample handling procedures. Although the processes overlap, they are distinct.

**180. Comment:** The commenter points out a redundancy between Section IX.B.2.b.iv and Section IX.B.5. (Commenter #8).

**Response:** Section IX.B.2.b.iv covers management of drill cuttings investigation derived waste, and does not cover disposal of such waste. Section IX.B.5 covers management of investigation derived waste generally, including accumulation and disposal.

**181. Comment:** Another commenter notes that Section IX.B.2.d seems to require the Respondents to submit samples that appear to be uncontaminated. The commenter suggests that the Department does not intend such a requirement (Commenter #14).

**Response:** In some cases demonstrating the absence of contaminants is appropriate. In order for the Respondents to show that the extent of contamination has been determined, a sample from the bottom of a borehole or excavation that reveals no or little contamination must be collected.

**182. Comment:** The commenter believes that field duplicates of soil, rock, and sediment samples collected under Section IX.B.2.e should not be identified as duplicates to the analytical laboratory. (Commenter #14).

**Response:** The Department agrees with the comment. Identification of field duplicate samples should not be provided to the laboratory conducting the analysis.

**183. Comment:** One commenter does not believe that purging the wells as described in Section IX.B.2.i.i will ensure that water samples will be representative of formation water because of the possible influence of bentonite clays and organic polymers in the well construction material. (Commenter #9).

**Response:** The Consent Order requires that proper development occur before well purging and sampling.

**184. Comment:** A commenter believes the purge pump assemblies should be fitted with a check valve that prevents water in the pipe from flowing back into the well. (Commenter #14).

**Response:** The Department agrees with the comment, but does not believe it is necessary to include such a requirement in the Consent Order.

**185. Comment:** The commenter believes that samples to be analyzed for volatile constituents should be collected using a low-flow technique. (Commenter #14).

**Response:** The Department allows certain "low-flow" sampling techniques, provided such samples are collected properly. Low-flow sampling techniques can cause underreporting of contamination if not collected properly.

**186. Comment:** The commenter believes that field duplicates of groundwater samples collected under Section IX.B.2.i.iv should not be identified as duplicates to the analytical laboratory. (Commenter #14).

**Response:** The Department agrees with the comment. Identification of field duplicate samples should not be provided to the laboratory conducting the analysis.

**187. Comment:** A commenter does not understand why NMED specifies a 10.6 eV PID in Section IX.B.2.d, but an 11.7 eV values in Section IX.B.2.g. (Commenter #8).

**Response:** The requirement in Section IX.B.2.d refers to headspace measurements for soil or rock samples. A less sensitive lamp should be used in this application to avoid fouling of the lamp, which could result in unreliable results.

**188. Comment:** The commenter wants clarification on the numerical criteria of 20% for laboratory confirmation of X-ray fluorescence (XRF) field screening results. (Commenter #8).

**Response:** Twenty percent confirmation is a commonly used frequency for confirming XRF field screening results.

**189. Comment:** The commenter states that field duplicate collection at a rate of 10 percent required in Section IX.B.2.e is redundant with Section IX.C.3.b. (Commenter #8).

**Response:** Section IX.B of the Consent Order addresses field methods and procedures. Section IX.C addresses laboratory procedures.

**190. Comment:** The commenter suggests referencing the newer version of EPA method TO-14 (TO-14A) in Section IX.B.2.g. (Commenter #8).

**Response:** The Department agrees with this comment. *The Department has revised Section IX.B.2.g of the final Consent Order to reference Method TO-15, and any updated methods.*

**191. Comment:** The commenter wants clarifications as to why silicon/bromide are mentioned together in the table in Section IX.B.2.i. (Commenter #8).

**Response:** These parameters silicon and bromide should not be listed together. *The Department has revised the table in Section IX.B.2.i of the final Consent Order to separate the two parameters.*

**192. Comment:** A commenter suggests that the daily field record described in Section IX.B.6.a should include a description of any condition that may affect the validity of sample analyses. (Commenter #14).

**Response:** Section IX.B.6.a of the Consent Order requires the Respondents to record all observations and field procedures. These items would include any conditions that might affect data quality.

**193. Comment:** Two commenters believe that Section IX.C does not make clear a distinction between method detection limits and reporting limits. (Commenters #8 and #9). One of these commenters wants the Consent Order to include definitions of " "quantitation limits," "method reporting limits," and "detection levels" in Section IX.C. (Commenter #9).

**Response:** Method detection limits are defined in SW-846 (cited in full in response to Comment No. 108**)**. They are the levels at which the analytical method is capable of detecting specific analytes. Quantitation limits are the levels at which the analytical method is capable of quantifying the analytes. Reporting limits are the levels at which the laboratory reports detections, which are usually set by the laboratory.

**194. Comment:** One of the commenter expresses confusion at the use of the terms "detection limits" and "reporting limits" in Section IX.C.1.d, and the terms "method reporting limits" and "method detection limits" in Section IX.C.3.c of the Consent Order (Commenter #9).

**Response:** The commenter is correct in that the term "detection limits" rather than "reporting limits" should have been used in Section IX.C.1.d, item #3. In Section IX.C.3.c, however, the term "reporting limits" is correctly used. That section provides that laboratory reporting limits

should be set at the lowest level practical. *The Department is revising item 3 in Section IX.C.1.d of the final Consent Order to substitute "detection limits" for "reporting limits."*

**195. Comment:** A commenter believes that the Respondents should be required, in Section IX.C, to submit to the Department for approval a one-time list of analytes and analytical methods, and then to note deviations from that list in individual investigation work plans. (Commenter #9).

**Response:** The Department does not believe that a generally applicable list of analytes and analytical methods is appropriate because the analytes are site-specific and may vary slightly from laboratory to laboratory, and the methods may be improved over time.

**196. Comment:** One commenter believes the second and third sentences in the first paragraph of Section IX.C are redundant. (Commenter #8).

**Response:** The Department agrees with this comment. *The Department has revised Section IX.C of the final Consent Order to combine the second and third sentences of the first paragraph.*

**197. Comment:** Two commenters want to know why the Department is requiring the Respondents to use radiogenic National Institute of Standards and Technology (NIST) traceable source standards in Section IX.C.1.e. The commenters suggest that NIST traceable standards should be used for all analytes. (Commenters #8 and #9).

**Response:** The NIST traceable source standards are useful only for radionuclides, and the Consent Order does not address radionuclides. *Therefore, the Department has revised Section IX.C.1.c in the final Consent Order to remove the requirement to use NIST radiogenic traceable source standards.*

**198. Comment:** Another commenter believes that "the auditing and quality assurance that [are] required for safety, area operations, and quality assurance are not being followed." The commenter states that currently there is no way for LANL to effectively audit, give safety assurances, and report public health risks. (Commenter #17).

**Response:** The Consent Order does not cover safety or operational issues, unless they pertain to corrective action. The Consent Order addresses quality assurance with specific requirements regarding data submittal, data, collection, laboratory methods and reports, and sample submittals.

## AAA. <u>Monitoring Well Construction Requirements (Section X)</u>

**199. Comment:** A commenter suggests replacing "high quality samples" with "representative samples" in the first sentence of Section X.B because a contaminated sample is not considered high quality. (Commenter #16).

**Response:** The words "high quality" in Section X.B refer to the quality of the sample, not the quality of the water. It means the sample is representative, meets quality assurance and quality control standards, and is readily comparable to other samples, as is necessary for decision-

making purposes. The term has a broader meaning than merely "representative." The Department does not believe that the term "high quality sample" will be confused with water quality in this context.

**200. Comment:** One commenter suggests that the Department require the Respondents, in Section X.C.3, to investigate the composition of pre-fabricated sampling systems to ensure they will not leach or sorb contaminants. (Commenter #14).

**Response:** Section X.C.1 of the Consent Order addresses this issue. It provides that well construction materials must be selected to ensure that foreign constituents will not be introduced and contaminants will not be removed.

**201. Comment:** Another commenter states that the Consent Order does not include a schedule for abandonment of improperly installed wells. (Commenter #17).

**Response:** General well abandonment procedures are outlined in Section X.D. These general provisions follow EPA and New Mexico guidance for proper well abandonment. The process and schedule for well abandonment will vary based on specific conditions and the progress of the investigation of the canyons and aggregate areas.

**202. Comment:** One commenter suggests that the well drilling and construction logs under Section X.E include a description of any condition that may affect the validity of sample analyses. (Commenter #14).

**Response:** Data quality concerns are required to be addressed in investigation reports under Section XI.C.

**BBB. <u>Reporting Requirements (Section XI)</u>**

**203. Comment:** One commenter states that DOE should be required to provide data on radioactive constituents under Section XI. (Commenter #1).

**Response:** As explained above in response to Comment **No. 26**, the Consent Order does not cover radionuclide contamination. Nevertheless, DOE has committed to collect radionuclide monitoring data and to report such data to the Department together with other monitoring data as part of the documents required under the Consent Order.

**204. Comment:** Two commenters want to add a new section (XI.G) requiring the Respondents to develop and maintain a Geographic Information System (GIS) database with all investigation, monitoring, and remediation data available to the Department and the public. (Commenters #11 and #18).

**Response:** The Department and the Respondents are developing a GIS system. Information from the system will be available to the public. Development of that system is not part of the Consent Order, however.

**205. Comment:** Another commenter believes that the Respondents should have the option to present surface water general chemistry parameters as isoconcentration contours on maps in Section XI.C.9.h. (Commenter #8).

**Response:** The Department does not believe that isoconcentration maps are a useful presentation of surface water data and should not be substituted for data tables.

**206. Comment:** The commenter likewise believes that the Respondents should have the option to present surface water contaminant concentrations as isoconcentration contours on maps in Section XI.C.9.i. (Commenter #8).

**Response:** The Department does not believe that isoconcentration maps are a useful presentation of surface water data and should not be substituted for data tables.

**207. Comment:** Another commenter requests clarification on whether the Respondents are required to report all analytical results in the form of tables in the investigation reports. If the Respondents are required to report results electronically, the Department should require the Respondents to make the results readily available to the public. (Commenter #14).

**Response:** As described in Section XI.C.14.d of the Consent Order, the Respondents are required to submit all analytical data, in the form of the laboratory final analytical reports, as an appendix to each investigation report. Under Section XI.C.12, the summary tables within the investigation reports will only include data showing analytes detected above method detection limits and data quality exceptions that could potentially mask detections.

Under the hazardous waste facility permit for LANL, Module VIII (Section Q, Task III.D), the Permittees must maintain an information repository and a public reading room, located in Los Alamos. This requirement applies to data the Respondents submit to the Department under the Consent Order. Moreover, all data that the Respondents submit to the Department under the Consent Order are available to the public at the Department's Hazardous Waste Bureau offices, 2905 Rodeo Park Drive East, Building 1, in Santa Fe, during normal business hours and upon advance notice. Section XI.A of the Consent Order requires the Respondents to submit all work plans and reports electronically. Section XI.C.14.d of the Consent Order requires the Respondents to submit the data electronically. The Department is working to develop the capacity to place all such data on its website.

**208. Comment:** The commenter requests that the Respondents be required to report the results of all rejected data as well as the all the detections that fall between the method detection limit and the reporting limit (J values). The requirement should also include reporting requirements for historical investigations. (Commenter #14).

**Response:** Under Section XI, the Respondents must provide copies of the analytical reports from the laboratory, which will include all rejected data. Under Sections XI.C.12, XI.D.11, XI.E.10 and XI.F.14 of the Consent Order, the reports must include all analytical data, including data on detections that are between the method detection limit and the method quantitation limit

("J" values). The Consent Order does not require similar reporting requirements for historical data, as an enormous volume of data has been collected, not all of which is good-quality.

**209. Comment:** A commenter requests that the risk assessment report under Section XI.E.5.b include the current standards to which the sampling results are compared (e.g., MCLs, WQCC, etc.). (Commenter #13).

**Response:** The Consent Order requires the Respondents to include current regulatory cleanup standards for comparison. Section X.E.5.b requires the risk assessment report to reference data summary tables in previous reports. Sections XI.B.11 (for investigation work plans if previous investigations have been conducted), XI.C.12 (for investigation reports), and XI.D.8 (for monitoring reports) require the Respondents to include regulatory criteria in data summary tables.

## CCC. Compliance Schedule Tables (Section XII)

**210. Comment:** One commenter states that the deadlines in the Consent Order are not fixed, but can slide as needed. (Commenter #12).

**Response:** The commenter is correct that the deadlines in Section XII of the Consent Order can be modified. However, such modification must be in accordance with Section III.J.2 of the Consent Order, which provides that any extension of the deadlines must be for good cause, and must be approved by the Department.

**211. Comment:** The commenter states that some of the deadlines in the Consent Order appear to be incompatible with the removal of waste. (Commenter #12).

**Response:** The commenter is correct that certain deadlines in the schedules in Section XII of the Consent Order would be incompatible with a remedy involving waste removal. However, as provided in Section III.J.2 of the Consent Order, the Respondents may request, and the Department may approve, an extension to any deadline for good cause. The Department has negotiated a fairly tight schedule in the Consent Order because it is generally much easier to extend deadlines than to shorten them. The Department recognizes, and expects, that extensions to the schedule will be necessary in the implementation of the Order. The Department would consider selection of a remedy involving removal of waste to be good cause for extending a deadline.

**212. Comment:** One commenter believes the spring discharge along the Rio Grande under Section XII, Table XII-5, should be sampled and estimated quarterly instead of annually. After several years of quarterly monitoring, the Department could then determine to continue quarterly monitoring or sample more or less frequently. (Commenter #14).

**Response:** The Department will approve the frequency of spring sampling in the Interim Facility-wide Groundwater Monitoring Plan and subsequent long-term monitoring plans. The sampling frequency may be changed in those plans

**213. Comment:** Another commenter notes there are 89 documents to be reviewed in Table XII-2 but there are only 88 on Table XII-3. (Commenter #2).

**Response:** The commenter is correct. *The Department has revised Table XII-3 in the final Consent Order, adding the Investigation Work Plan for the Cañon de Valle Aggregate Area, to correct the error.*

**214. Comment:** Another commenter wants to modify the Remedy Completion Report due date for MDA B in Table XII-1 from 2011 to 2007 because transfer of the property may occur in the near future. (Commenter #15).

**Response:** The schedule for cleanup of sites at LANL was developed to prioritize cleanup of sites that pose a greater risk to human health and the environment, and to achieve final cleanup as quickly as practical, within the resource capabilities of the Department and the Respondents.

**215. Comment:** One commenter recommends that the Department include a table summarizing its target review completion dates for each activity specified in Sections IV and XII of the Consent Order. (Commenter #18).

**Response:** The notice dates in Tables XII-2 and XII-3 reflect the Department's anticipated review times and the Respondents' anticipated response times. The Department does not believe that another table is necessary to relay this information.

**216. Comment:** Another commenter states that although there are tables identifying deliverable schedules, there are no provisions on whose authority cleanup will be ordered. (Commenter #17).

**Response:** The Department has issued the Consent Order pursuant to its authority under the HWA and the SWA. The Department has the authority to implement and enforce these statutes.

**DDD. <u>Miscellaneous Issues</u>**

**217. Comment:** Two commenters express concern whether the Department has adequate resources to review the many reports that LANL submits, and to do so adequately and timely. (Commenters #2 and #18). One of the commenter asks what resources the Department is willing to commit to implementing the Consent Order. (Commenter #2).

**Response:** The Department recognizes that it will need to approve a great many deliverable documents under the Consent Order. However, the Department believes the schedule in the Consent Order is a realistic one. The Department is committed to reviewing the deliverable documents on schedule, which is essential if the Consent Order is to succeed. However, if the Department is occasionally unable to review documents on-schedule, as the commenter notes, there are provisions in III.M.2 allowing for extensions of time.

The Department receives an annual appropriation from the State Legislature to administer New Mexico's hazardous waste program. The resources to implement the Consent Order are a part of this appropriation.

**218. Comment:** One commenter states that as a result of not including CERCLA authority in the Consent Order, there is no means to "open the door" to questioning the past calculations or hazardous ranking system that were part of the consideration for Superfund designation. (Commenter #17).

**Response:** The LANL facility is not on the National Priorities List under CERCLA. It was not ranked under the hazard ranking system, and has no "Superfund designation."

Further, as explained above in response to Comment No. 26, CERCLA is implemented exclusively by the federal government, primarily EPA, as well as other federal agencies. The State is without authority to include CERCLA cleanup requirements in this Consent Order.

**219. Comment:** One commenter wants public participation regarding the Respondents' history of compliance with the Consent Order. (Commenter #13).

**Response:** The Department's decisions on addressing the Respondents' compliance, or non-compliance, with the Consent Order will be a matter of the Department's enforcement discretion. The Department does not believe public participation in such decisions is appropriate. Nor is the Department aware of any precedent for public participation in such decisions.

**Attachment**

| Index of Comments Received through October 1, 2004 on the Los Alamos National Laboratory (LANL) Draft Consent Order | | |
|---|---|---|
| **Unique Commenter No.** | **Date of Comment** | **Commenter/Association** |
| 1 | October 1, 2004 | Jay Coghlan, Nuclear Watch of New Mexico |
| 2 | September 29, 2004 | J. Swenson, Citizen |
| 3 | September 6, 2004 | Elaine Giovando, Citizen |
| 4 | September 27, 2004 | Peter T. Barbatsuly, Citizen |
| 5 | October 1, 2004 | Astrid Webster, Citizen |
| 6 | September 2, 2004 | Carl Buckland, Citizen |
| 7 | October 1, 2004 | Kimi Green, Citizen |
| 8 | September 30, 2004 | Donivan Porterfield, Citizen |
| 9 | September 24, 2004 | Dorothy Hoard, Citizen |
| 10 | September 15, 2004 | Bob Villarreal, Citizen |
| 11 | September 22, 2004 | J.D. Campbell, JDC Consultants, Inc. |
| 12 | September 23, 2004 | Greg Mello, Los Alamos Study Group |
| 13 | October 1, 2004 | Joni Arends, Concerned Citizens for Nuclear Safety and |
| 14 | September 23, 2004 | George Rice, Citizen |
| 15 | October 1, 2004 | Donna Dreska, Los Alamos County |
| 16 | September 28, 2004 | Christopher Timm, PECOS Management Services, Inc. |
| 17 | September 18, 2004 | Elaine Cimino, Citizens for Environmental Safeguards |
| 18 | September 30, 2004 | Timothy A. DeLong, Northern New Mexico Citizens' Advisory Board |